



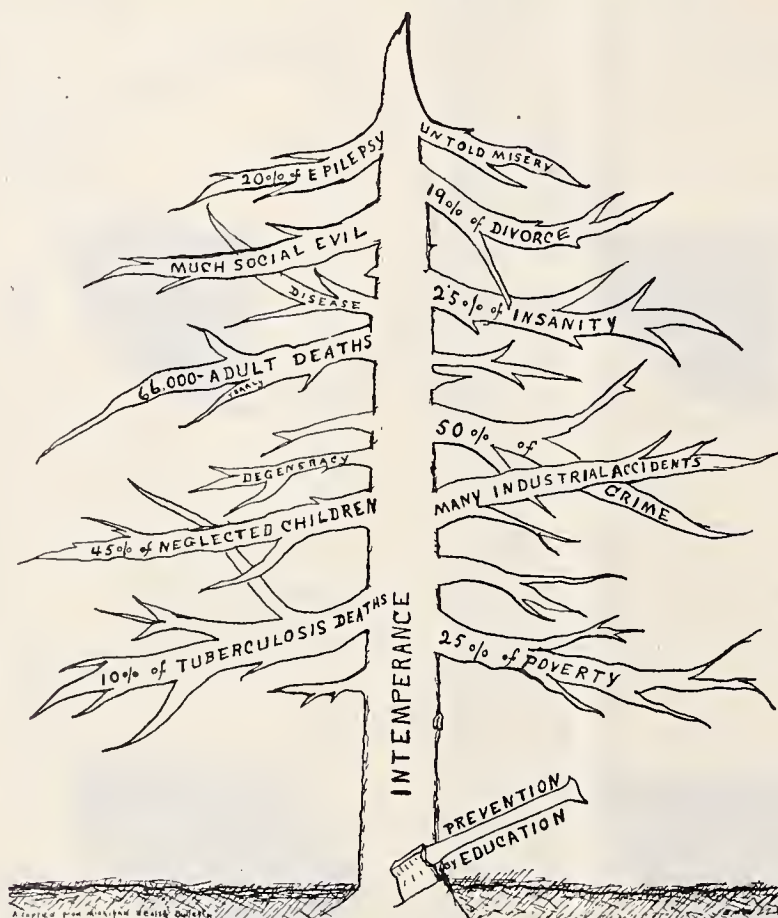


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# SCIENTIFIC TEMPERANCE JOURNAL

— *Continuing the* —  
SCHOOL PHYSIOLOGY JOURNAL

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HOW can we—we who have gained for ourselves health and comfort and knowledge—how can we stand patiently by and see our brother diseased and miserable and ignorant?—How can we bear our luxuries so long as a child is growing up in savagery whom we might have saved,—or a woman is dropping from sorrow and overwork whom we might have cherished and helped? We are not our own—we are parts of the whole. Generations of workers have toiled for us in the past, and are we, in return, to carry our wretched burden off to our own miserable corner!—sharing and giving nothing? Woe upon us if we do.—Mrs. Humphrey Ward in *The History of David Grieve*.

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*Published at—*  
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SEPTEMBER, 1912



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(Continued from page 8)

### EDUCATION BRINGS RESULTS

The results of educational work seem also to be indicated in this table of per capita consumption.

FINLAND's leading figure in the anti-alcohol movement has been Alli Trygg-Helenius, who away back when our school temperance education movement was in its infancy, wrote for samples of our books which she had translated and put into the schools of Finland. She and her scholarly husband have been vigorous promoters of the educational movement and it would be irrational to suppose that it had not exerted a weighty influence in reducing the per capita consumption of alcohol and the building up of prohibition sentiment.

IN SWEDEN, temperance instruction in the schools was ordered by the Government in 1892 and has since been promoted by the growing temperance organizations. Recently portions of the government proceeds from the sale of alcoholic liquors (under the Gothenburg System) have been appropriated for anti-alcohol educational work. There has been a system of training teachers and courses of instruction for young people who had left school.

The rapid increase in the number of members of total abstinence organizations, and their representatives in the national legislature is undoubtedly the fruitage of this educational work. A straw vote taken two years ago showed a majority in favor of national prohibition. The Royal Family is

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in favor of abstinence. Undoubtedly Sweden will soon have national prohibition, as soon as she can free herself from the commercial pressure exercised by liquor-selling countries to keep her markets open for the sale of the beverages the people are ceasing to demand.

HOLLAND's battle has been against gin, but she has had a large number of temperance societies actively printing and circulating literature. Referendum votes organized in local districts have shown considerable majorities in favor of prohibiting alcoholic drinks.

ENGLAND stands midway between the largest and the smallest per capita consumers of alcohol. She has had active temperance organizations with permission for their agents to enter and teach temperance lessons in the schools. She numbers total abstinents by the million and in all grades of society. But her anti-alcohol legislation has been hampered by too many members of Parliament being directly interested in the brewing business.

FRANCE can no doubt make a claim to having carried on educational work in her schools; but the warning has been only against spirituous liquors. Wine is called hygienic. In short, France has been teaching her young "moderation" in the use of alcohol, and her per capita rate of alcohol consumption is a demonstration on a large scale, of the futility of advocating the moderate use of a habit-forming poison.



# Scientific Temperance Journal

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No. 1

"The moral side of temperance instruction so grandly urged is all right, but how am I to instruct the child against any bad habit whatever unless I show him plainly the evils which follow in the train of indulging that habit? Children are governed by motives as are persons of mature age. If we expect the man to exercise his will-power to resist temptation there must be some motive or reason as a foundation, and the earlier in childhood this reason is implanted, the broader and stronger is the foundation upon which his will rests and from which it derives its strength."—Hon. Henry Sabin, L. L. D.

## Poverty—Cause or Effect

BY THE EDITOR

IT HAS long been a commonplace observation that much of the poverty springs from the waste of resources in the drink habit. Charles Booth of London calls drink "the most prolific of all causes and the least necessary."

The committee of Fifty in the United States, known to be conservative, put the drink-caused poverty at not less than 25 per cent., and pauperism at 37 per cent., based upon reports from charitable societies which estimated the poverty due to drink all the way from 15 to 53 per cent.

YET it is often seriously maintained that if bad economic conditions were removed, the worker given a living wage, suitable homes made possible, opportunities for proper enjoyment and recreation increased, the drink habit would decline; in other words, that drink is the result not the cause of poverty.

No one who has really faced the question will maintain either that drink is the sole cause of poverty or that the drink habit may not be fostered by bad economic conditions. But we believe the evidence is already fairly conclusive that improved economic conditions will not of themselves be a panacea for the drink habit and its results.

IF IT is true that poverty causes men and women to seek to drown their misery in drink, we should expect to find an increased consumption of alcoholic drinks in "hard times." But what are the facts? Since 1870 each period of financial depression in the United States, notably those following 1873, 1893 and 1908, has been marked by a falling off in the per capita consumption of alcoholic drinks instead of by an increase as would be expected if the lack of employment and consequent poverty are the motives to drink.

"It is a statistical fact" says the great English labor leader, John Burns, "that as wages rise general drunkenness follows."

"The Prison Commissioner's Report (1899) says: 'A year of great prosperity, 1899, was also a year of great drunkenness.

The year of 1875, our busiest year, was the most drunken of any recorded. It may be urged in extenuation of these deplorable facts that the determining cause was the previously low wages; also that it is the sudden rise from rural to urban wages that sweeps the appreciated wage earner from his simple, sober ways to exciting, heavy drinking habits. If this be accepted, it diminishes enormously the force of the theory that poverty causes drink."

Lambert in his study of Bellevue alcoholics found that of 259 cases, in only 12 per cent. was "business or domestic trouble" given as the cause of beginning to drink. Only 4 per cent. more began when out of work and this percentage is still further reduced in importance by the fact that it also included cases of persons "who began to drink when on a vacation."

On the other hand 49 per cent. began "for the sake of sociability," a factor wholly governed by the individual and not by the economic condition.

ONE of the most interesting side-lights on the problem comes from an English-American correspondent in the *International Good Templar*, Miss Jessie Forsyth. English by birth, Miss Forsyth has lived many years in the United States engaged in business, has visited many countries as an official of the International Order of Good Templars and is now a resident of Australia. Writing of this matter, she says:

"Western Australia contains nearly 1,000,000 square miles of territory. Its population at the present time is not more than 300,000, so there is as yet no need for over-crowding. It abounds in all manner of valuable products. The people are brave, progressive and enterprising; the climate is ideal.

"The legislation is nearly all very favorable to working people. The eight-hour working day and Saturday half holiday are established by law. In most trades a minimum wage is fixed. Wages are fully as high as in the United States; and living



conditions, owing to the climate, are much easier. Educational facilities are good and constantly improving. Literature of all kinds is cheap and plentiful. Churches are numerous, so there is ample opportunity for spiritual culture, and the desire for recreation is gratified by cricket, golf, tennis, rowing and swimming clubs, concerts, theatres and moving picture shows.

"The misfortune which cannot be avoided under the most prosperous circumstances are provided for by hospitals, convalescent homes, institutions for the deaf and dumb, for the blind, etc.

"It would seem that under such ideal conditions there should be no poverty, and it may be confidently asserted that there would be none, or that at least it would be a negligible quantity, if it were not for the drink. But the liquor saloon is on every corner. It is licensed to keep open during the hours when all other trades must close, and it is thronged constantly. The results are just the same as in the less prosperous countries: poverty, misery, disease, insanity, vice, crime, and all the other evils which attend the traffic wherever it exists. Taking everything into consideration which may be said in excuse, the results are nevertheless

appalling and must certainly prove that not alone in the establishing of prosperous conditions will the panacea be found."

"At best," says the author of "Social Welfare and the Liquor Problem," it is a vicious circle of action and reaction. Stop the drink and a chief source of poverty will be removed; remove all poverty and intemperance will flourish as before."

WHATEVER may be said of the influence of environment, and no one denies that it is great, the fact remains that the drink habit is largely a matter of individual choice, that thousands of capable men have lost that capability and have plunged themselves and their families into abject poverty as a result of acquiring the alcoholic habit. That as long as people believe that alcoholic drinks are harmless used in so-called moderation, or even beneficial, as long as the alcohol traffic is permitted to put the temptation in the way, and as long as social custom puts on the pressure for indulgence, we may give our heartiest sympathy and cooperation to all who are trying to abolish poverty, but society has a right also to expect their help in doing away with a most potent cause of poverty—the use and traffic in alcoholic liquors.



### Alcohol and the Mentally Dead

BY JOSEPH WIGLESWORTH, M. D., F. R. C. P., M. R. C. S.

I RECENTLY submitted to a careful analysis all the cases of alcoholic insanity admitted into Rainhill Asylum during a period of eleven years—1891 to 1901 inclusive. These were worked out. Each individual case was carefully reviewed, and in doubtful cases, even if drink was said to be the cause, that was not put down. I was anxious to get at the thing exactly, without any exaggeration.

During this period 4,261 persons were admitted, and in no less than 1,248 of these there was clear evidence that the insanity was due wholly or in part to the toxic effects of alcohol. These figures give a percentage of drink cases on the whole number of cases admitted of 29.28. Of course in many of these cases the alcohol merely renders actual defect potentially existent in the organism, but it is not by any means always so, for alcohol is quite capable of inducing insanity in persons who show no hereditary tendency thereto.

In 688 of the above total of drink cases—16.14 per cent.—alcohol was the only cause that could be ascertained for the patient's insanity whereas in the remaining 560 cases

—13.14 per cent.—other factors, such as heredity, assisted to bring about the result. No person has been counted more than once.

These figures give some slight idea of the frightful havoc wrought by alcohol on the nervous system. There is reason to believe also, from the great frequency with which a history of gross parental intemperance is found in the antecedents of persons who become insane, that a habit of excessive drinking tends in some cases to a poisoning of the germ cells of the parent by means of the alcohol circulating in the blood and a consequent tendency on the part of these germ cells to develop into an organism with an unstable or badly developed brain. This may probably result even if the sperm cells of the father alone are affected.

It may be said that the effects on the offspring from a drunken mother are much worse, though it is not proved scientifically, because it is difficult to prove a thing of that kind, but those of us who have seen a great many of these cases have all come to that conclusion—that a very large proportion indeed of cases of insanity have intemperate parents. I worked it out that a



sixth part of all the cases had a history of alcoholic intemperance in the parents. That was excluding all cases in which there was any hereditary tendency. It was necessary to exclude those.

It is my opinion that the sperm cells of the fathers get so injured by the alcohol that the union of the sperm cell and the germ cell will produce unstable offspring. Of course the mother might be healthy and counteract it and so on—it does not necessarily follow. We know that perfectly healthy children are born of drunken parents, but in many cases it does operate. There is no question with regard to drunken mothers that alcohol exerts an extremely pernicious influence on the young, and poisons the nerve centres when the child is in a very susceptible condition. I think it is very important to look at the development of insanity from the point of view of the development from the germ. There is no question that among exciting causes alcohol is one of the most frequent.—Report of *Inter-departmental Committee on Physical Deterioration*.



### Alcohol, the Mother of Crime

BAVARIA is the first country to institute a governmental inquiry into the relation of alcohol to crime. The statistical annual for 1911 contains, according to *L'Abstinence* (April 20, 1912) the results of an inquiry ordered by the Bavarian Minister of Justice in 1910, concerning the influence of the use of alcohol upon the frequency of different forms of criminality.

The inquiry was limited to cases in which the influence of alcohol was undeniable. The two questions asked were: Was the crime committed in a state of drunkenness or was it attributable to the habitual use of alcohol. The numerous cases in which alcohol exercises an indirect hereditary influence were not taken into account. Since this very important factor can not be expressed in figures, the report in question must be taken as Dr. von Valta, Assistant of the Bavarian Statistical Bureau, remarks, (*Zeitschrift für Rechtspflege in Bayern*, (Nov. 24, 1911) a representing a minimum amount of crimes committed under the influence of alcohol, and can not in any case be called an exaggeration.

The actual number of persons arrested in Bavaria in 1910 for crimes committed under the influence of alcohol was 8,864. Of these 190 were chronic alcoholics, the others were intoxicated when the crimes were committed.

These alcoholic crimes constitute 14 per cent. of all persons condemned during the year.

The Bavarian inquiry confirms other analyses which show that crimes of violence, blows and wounds are particularly frequent in the crimes of alcoholics. The blows and wounds perpetrated under the influence of alcohol constitute a third of all crimes of this character enumerated in the statistics.

One serious feature of the alcoholic criminals is that a large proportion of them were young people. They were also more frequent in communities of less than 10,000 than in places exceeding that population.

### "ALCOHOL AND CRIMINALITY"

also forms the subject matter of part of a chapter in a recent work by Dr. George B. Gruber, of Munich, reviewed in *Der Abstinente Arbeiter*, (April 27, 1912.) "It is not those crimes," says Dr. Gruber, "which require consideration and careful planning, that are found to be attributable to alcohol. It is those in which the emotions are concerned. Circumstances and occasions which the unimpaired brain regards carelessly or passes over with a few quiet words, call out in the alcoholized brain quarrelsome words and unreasonable acts. Murder, manslaughter, bodily injuries, family disturbances and cruel deeds of all kinds, outrages and immoral acts stand out here most prominently, although other crimes such as larceny, cheating and misrepresentation are often met in hereditary degenerates, or those who have become degenerate through their own addiction to alcohol, though they were not under its influence at the time of the commission of the act. For according to statistics from thirty to seventy per cent. of criminals and those committed to houses of correction have alcoholic parentage.

"Dr. A. Baer, author of the first classical compilation on alcoholism, made an investigation of 8,067 male prisoners and found that 94.2 per cent. of the crimes against the family, 81.7 per cent. of crimes of personal violence, and 73.3 per cent. of crimes of immorality were committed by occasional drinkers, that is, in a state of acute intoxication. Few were habitual drinkers.

"The question has also been investigated geographically and it has been found that the most dangerous crimes of personal violence take place most frequently in places where the alcoholic consumption is correspondingly high."—*Translated for the SCIENTIFIC TEMPERANCE JOURNAL*.



## The Economic Burden of Alcoholism

**I**NCREASING attention is being given by the sickness insurance societies of Germany to the tax their treasuries suffer from sickness and disability due to alcohol. A physician connected with a sickness insurance society in Baden stated recently at a meeting of the local sick-club representatives, that whether one considered the specific characteristic effects of alcohol upon the stomach, liver, kidneys, breathing apparatus, heart, blood and blood-vessels, or the injuries to health due to its indirect effects, it cost the sick insurance societies immense sums annually. Most important for the insurance societies therefore is the work of education.

Another economical question connected with the use of alcohol, now receiving attention is its augmentation of the tax-rate. City Assessor Smith of Stettin, asserted at a recent meeting of city officials that in Germany the tax-rate is increased 20 to 30 per cent. at least by alcoholism. There are in Germany, he holds, according to careful estimates, at least 300,000 inebriates who are dependent more or less, mostly more, upon the city purses. These 300,000 drunkards and all in their communities who fol-

low their example on the downhill road, they, their wives and their children are an expense to the community. They cost in continuous or temporary support, on account of lack of work, or for the doctor and medicine, for sickness, for hospital care and convalescent homes, for police and other protective measures, for prisons, work-houses, insane asylums, reformatories, and finally after death, for the support of their widows and children.

For the maintaining of these institutions is needed an army of officers with their allowances and salaries. All these drinkers are therefore drones in the city household. They cause only outlays and bring nothing in so that they not only weaken resources of the city but add immense expenses which would not exist but for the alcoholism.

Thus we see the injury done by alcohol to the public body, the expense it causes, in the constant tightening of the tax screws. Hence the necessity of social self-defense.

The means of self-defense urged by the assessor were, first wide-spread education, by voice and press, and then organized care of the drunkard.—*Translated for the SCIENTIFIC TEMPERANCE JOURNAL.*



## Successful Temperance Work with Children

BY DR. KARL GRAETER, BASLE, SWITZERLAND

**T**O SECURE success in temperance work with young people one must count neither time, money nor trouble. Youth should be won to our cause by every possible means. Too often the words remain words only. "We must win the children," say our leaders, but because of numberless burdens that they carry, meetings, reports, correspondence, etc., the work with the children very quickly loses with them its importance and becomes a secondary matter to be willingly shifted upon the first obliging soul willing to undertake it.

It is not we but the coming generation who will vote for the laws we urge. Let us then win now to our cause the young people who later will have to make and execute better laws. Let us not wait till their minds are hardened and self-interest and prejudice have silenced their conscience.

When, barely two years ago, I undertook the direction of a juvenile union of Good Templars there were about eighty children from ten to fifteen years of age.

Today there are more than 500 members in eight groups divided by age and sections of the city. The children under ten years of age are in other groups, which gives us for the city of Basle a total of 750 young members of the neutral order of Good Templars.

The organization and management of such a number is possible only by the united efforts of a large number of indefatigable workers who try to engage the children in active work and thus prepare assistants.

At first when I had only a small number I divided them into groups and every week invited my assistants to my house for a little supper. Thus I learned to know them and was able to guide them. I gave them the necessary instruction which in turn they carried out in their respective groups. Later they hectographed invitations and sent them out, found new members, visited those who failed to attend the meetings, informed parents about the object of our organization.

In the meetings I had the children sing



gay songs, choosing those which they did not learn at school. I had them recite, talk, play charades. I told them all sorts of stories, not confining myself to temperance stories. I showed them lantern pictures and chemistry experiments; in short everything that interests children. We organized games according to the season; took long walks, had races, went camping, had demonstration parades with flag, fife and drum.

An important feature contributing much to our growth was the Spring festival, held in a great hall of our city, for which the children sent out 15,000 invitations to their parents and friends. Fifteen hundred persons, more than one per cent. of the population of Basle, accepted the invitation and had the pleasure of hearing the songs, speeches and recitations and of seeing the dialogues and dances carried through by the young people.

The great difficulty is to hold young people after about fourteen years of age. As far as possible one should forestall their inclinations. For example: I noticed one day that a young fellow who had been one of the most enthusiastic was no longer attending the meetings. Going to look him up, I found that with some other friends he had organized an athletic club which he was enjoying better than ours, he said. I watched the exercises of the young acrobats and when I had heartily praised their extraordinary feats I got them to promise to join our Union as a special acrobatic section with its own officers. Now they meet two

or three times a week in my *laundry* to perform their audacious feats and call themselves the "Helvetia Acrobatic Club."

We have now at Basle 3600 abstaining children. If only one-half remain loyal to the principle we can count upon a great diminution in a dozen years in the use of alcoholic drinks.

Even in the country where abstinence is less popular I have found that it is easy to organize Unions with a little skill in planning.

I had under treatment a patient suffering from nervous troubles. As a remedy I advised her to occupy herself in her village with social questions. She invited some children to her home, told them stories, amused them with different games and had gymnastics. The children were allowed to bring their friends. It was not until the fourth or fifth visit that she mentioned the subject of abstinence and suggested that they organize a juvenile union. Six months later the union had grown so that it joined the order of Good Templars.

This is but one example among many. It proves that when we make work with the children our chief work the result will always be crowned with success and will facilitate the work among adults.

If on the contrary the work with youth is considered merely accessory and burdensome, the result will be disappointing all along the line.—*Translated for the SCIENTIFIC TEMPERANCE JOURNAL.*



### The Meaning of a Great Tragedy\*

THE sole instrument of a man's personality, the human brain is the greatest thing in the world. Its destruction is, therefore, the greatest of world tragedies, and alcohol, most often the agent of that destruction, is truly "The Great Destroyer."

To the naked eye a mass of grayish white pulp which could easily be borne on the two hands, under a powerful microscope the brain resolves itself into millions of nerve cells, little star-like bodies huddled together in the mesh of nerve fibres which connect them together and then dive off into bunches to form nerves. These star-like cells (illustrated, greatly magnified, in the diagram on page 12a) are grouped off into centres by nature and to each is assigned its special and separate function. Some preside over the organs, others over the movements of the body and still others are the specific instruments which enable us to think, reason,

judge, remember, control ourselves, or to love good and hate evil. All are closely connected with each other.

These brain centres have a definite order of development (indicated in a general way by the diagram in which each compartment represents one group of centers or "organs" controlling body functions). The development of the various organs corresponds with the development of the brain center presiding over that organ.

Since the story is so fascinating and explains so vividly how and why alcohol successively impairs self-control, the mental powers, muscular precision and the vital processes, let us trace this order of development in an individual child.

\*Abridged from chapters in *The Evils of Alcohol* by W. A. Chapple, M. D., Ch. B., M. P., which excellent and interesting book also contains several vivid pen pictures of typical alcoholic cases. Price \$3.8 net. G. G. Harrap and Co., 9 Portsmouth St., Kingsway, W. C., London.



The first organ to function is the heart (1) which begins its baby pulsations while the brain center is being constructed from which it receives its messages of direction and control. Next the lungs begin work immediately after birth always obeying the brain centers (2) which preside over their activities. These two centers are essential to life.

The next to function are the organs of locomotion (3) comprising all the voluntary muscles of the body which gradually learn their duty under the direction and control of the "motor centers" in the brain. These, well controlled, make muscular work, and baseball and other sports possible.

The fourth organ to function consists of those brain cells or centers which have to do with the acquisition of knowledge (4) through the avenue of the senses. These acquaint us with our environment and make mental pleasure and work possible. They are closely connected by nerve filaments so they can consult together.

Latest of all comes the gradual development of those finest brain cells which have to do with judgment, reason, the will—the "inhibitory centers" (5). These constitute the instrument of man's spiritual nature and are seldom fully developed until maturity. They also largely control the centers of knowledge and locomotion, and in a slight degree that of the lungs but have no control over the heart.

Having clearly in mind the order and manner in which the brain centres from the lowest to the highest develop, we can readily understand from the following description the reasons why alcohol of all the "pleasure poisons" man has ever used, is the most destructive.

Most poisonous drugs have what is called an "affinity" for certain tissues of the body, often ignoring all others. Alcohol in common with its kindred narcotics, morphine and chloral, has a special affinity for nerve cells and centers particularly for the higher brain centers, paralyzing those centers in the inverse order of their development, the last suffering first and most, and the first developed suffering last and least. That this is the case can be observed in that unfortunate, the drunken man.

Let us watch the process of intoxication in a youth unused to alcohol. He is healthy, athletic, cultured, full of energy and fire of youth. Tuition and experience have brought him to the point where every impulse is bridled, bitted and reined by a guiding principle in his will. In other

words the highest layer of his brain centers is fully developed.

He takes a dose of alcohol some of which unaltered, is carried to his brain and bathes all his nerve centers in its flow. The highest centers being most susceptible to its influence, suffer first, the lower least, perhaps not at all, from this first dose. But those higher centers in the upper layer stagger, lose their grip, let go the reins. The young man loses a little of his self-control. He tells the secrets of his bank or office, confides some personal affairs, loses his former proper self-restraint. He is tempted to say and do things that he never would have said or done in his normal moments.

He is asked to sing and complies with abnormal readiness, but study his vocal notes—the most difficult to perform are the ones at which he fails first. The last piece or note that he learned is the first at which he fails and fails more signally. The most difficult word to pronounce is the first he slurs. The simple ones he learned in boyhood and has repeated most often are the words he most easily and clearly enunciates. He is able to walk and stand and think and act, along the lines of frequent past experience, that is, with the nerve centers which he has most frequently used and which constitute the more basal foundation of his activities. But the last acquired accomplishments in his experience, the last developed faculties of his mind, the most susceptible and complex processes in his cerebration are the first to go under the influence of the dose of alcohol with which he has bathed his brain centers. In terms of our diagram his uppermost compartment of brain cells become partially paralyzed by this nerve-cell poison.

Now give him another dose and watch the progress of the paralyzing process. This dose acts first and most powerfully upon the centers already suffering, and they consequently suffer still more and a larger measure of self-restraint is gone. Probably it is all gone, and every impulse that arises has full sway. But the next layer is affected paralytically. His knowledge of his environment is disturbed. He misinterprets the remarks of his companions. He puts a wrong construction on a perfectly innocent remark and wants to fight. He may commit assaults or crimes. He calls a paragon of truthfulness a liar. He loses his notion of time and place. He loses all sense of proportion and environment. His friends are his enemies and his enemies are his friends. Those regions of his brain



that he used in making observations and acquiring knowledge are confused, disturbed, paralyzed. He does not know where he lives. He has probably forgotten his name. All those faculties of his mind concerned with the accurate knowledge of affairs are in a state of paralytic stupefaction. To repair to the terms of our diagram, the second topmost layer of his brain centers are bathed in this paralyzing potion.

Repeat the dose. His upper layer is still further affected and is now hopelessly paralyzed. The second layer, too, is affected and is on the verge of complete temporary paralysis, while the third layer (3) has yielded to the same paralytic influence. He loses control over the muscles of locomotion. Fine mechanical work is impossible. He staggers, heaves, rolls and falls, not because his muscles are functionless, but because the nerve centers which control these muscles fail to transmit the impulse of action to the muscles over which they normally preside. He is now on the floor, his upper layer paralyzed, his second layer paralyzed, and his third layer of brain cells paralyzed also. His heart is beating, his breathing though irregular is capable of sustaining life.

If a quantity sufficiently large is given him, and this is a not uncommon experience in the catalogue of disasters due to alcohol, his breathing stops and, after a short but appreciable time, the heart-beat also ceases. The paralysis of the two brain centers (4, 5) first to arise, last to be affected ends all.

#### HOW HABIT IS FORMED

What happens if smaller amounts of the poison are taken and the doses spread over years? All other things being equal, acute intoxication lasting for hours is an epitome of chronic intoxication lasting for years. But all other things are seldom equal, and native resistance and collateral disease of all kinds profoundly alter the phenomena of chronic alcoholism.

Considering, however, only the effects on the nervous system we find that while a few unusual, robust persons can use very limited amounts of alcohol for considerable periods without *apparent* harm, in general the brain cells are affected in the same manner and in a degree proportionate to the amounts consumed as in the case of the young man described; but the dose taken is not usually sufficient to entirely paralyze any of the brain center layers. They are staggered, not rendered functionless. Still true to the law, the highest centers suffer

first and most, the lower last and least in regular gradation.

In the drinker this disturbance is constantly repeated and the higher centers lose some of their alertness, strength and stability in the face of temptation. Gradually these essential inhibitory centers are insidiously weakened and eventually break down. The somewhat more stable but highly organized knowledge centers undergo degeneration but in a lesser degree. The locomotion centers also suffer appreciably. This results in a gradual dulling of the moral sense and mental acuteness and, later, muscular precision undergoes impairment.

Our self-styled moderate drinker uses more and more alcohol as time goes by. He becomes a heavy drinker, because alcohol by thus degenerating the brain and nerve cells produces a diseased condition we know as a craving.

As the acute intoxication is characterized first and most by the loss of self-control, so is the continuous use over a long period of time characterized by a chronic degeneration of these same brain centers. When this degeneration has proceeded so far as to make the crave irresistible, the loss of all that a man holds dear and the consciousness also of the cause of the loss have no effect to check the downward course of the drinker. His self-control is gone, his higher brain centers are paralyzed or dead.



#### Miss Jane Addams on Alcohol and Immorality

A CAREFUL scientist has called alcohol the indispensable vehicle of the business transacted by the white slave traders, and has asserted that without its use this trade could not long continue.

Whoever has tried to help a girl making an effort to leave the irregular life she has been leading, must have been discouraged by the victim's attempt to overcome the habit of using alcohol and drugs. Such a girl has commonly been drawn into the life in the first place when under the influence of liquor, and has continued to drink to enable herself to live through each day. Furthermore the drinking habit grows upon her because she is constantly required to sell liquor and to be "treated."

It is estimated that the liquor sold by such girls, nets a profit to the trade of 250 per cent. over and above the girl's commission. This profit on the sale of liquor can be traced all along the line in connection with the white slave traffic, and is no less disas-



trous from the point of view of young men than of the girls. Even a slight exhilaration from alcohol relaxes the moral sense and throws a sentimental or adventurous glamour over an aspect of life from which a decent young man would ordinarily recoil, and its continued use stimulates the senses at the very moment when the intellectual and moral inhibitions are lessened.

Police Commissioner Bingham of New York says, "There is not enough depravity in human nature to keep alive this very large business. The immorality of women and the brutishness of men have to be persuaded, coaxed and constantly stimulated, in order to keep the social evil in its present state of business prosperity."—*McClure's Magazine*, (March 1912).



## Tabulated Public Sentiment

By E. L. TRANSEAU

THE story of public sentiment toward the use of alcoholic drinks is very clearly indicated in a table prepared by Professor Curt Wallis of Sweden in terms of absolute alcohol, showing the annual per capita consumption of alcoholic drinks in twelve European countries, and in the United States, during the years 1901-1905. Another table represents an estimate of the daily consumption of alcohol by men from twenty to sixty years of age, expressed in bottles of beer, 4-percent. alcohol. The two tables stand thus

| Country         | Liter (quarts) of absolute alcohol annually | bottles (1-3 liter) of 4-percent. beer daily |
|-----------------|---|--|
| France          | 18.88                                       | 11   |
| Belgium         | 13.18                                       | 8  |
| Italy           | 12.02                                       | 7  |
| Switzerland     | 11.96                                       | 7  |
| Denmark         | 10.94                                       | 7  |
| Germany         | 9.44  | 6  |
| Austria-Hungary | 8.31  | 5  |
| England         | 7.77  | 5  |
| Holland         | 5.60  | 3  |
| United States   | 5.54  | 3  |
| Sweden          | 4.91  | 3  |
| Norway          | 2.37  | 1  |
| Finland         | 1.90  | 1  |

### WINE AND BEER COUNTRIES CONSUME MOST ALCOHOL

A number of interesting facts are associated with this list. First, the spirit-drinking country, Denmark, is fifth in the list of absolute alcohol consumed. Second, a wine-drinking country, France, heads the list and a beer-drinking country, Belgium, stands second in order in the consumption of absolute alcohol. Italy and Switzerland, both wine-making and wine-drinking countries, take third and fourth places respectively. A glance from the alcohol consumption of these countries to that of the United States shows how illogical are those who advocate the common use of wine and beer as a means of diminishing our intemperance.

Another interesting parallel is the close

relation between the sentiment against the sale of alcoholic liquors and the demand for them as shown by the rate of consumption.

FINLAND has twice voted for national prohibition and would be living under it today but for the opposition of the Czar of Russia. Her per capita consumption of two quarts of alcohol annually, or one bottle of beer daily by adult men, shows how fair would be the prospect of prohibition's prohibiting if she had the law.

NORWAY already enjoys a good degree of prohibition, especially in rural districts. She also has Sunday closing, extending from Saturday noon to Monday morning for all localities.

SWEDEN and Holland have a large amount of public sentiment in favor of prohibiting the liquor traffic, comparable to that in many sections of the United States. Numerous "straw votes" taken in various sections of these countries shows that if the privilege of local option obtained, there would be many "dry" sections on their maps.

FRANCE, taken as the opposite extreme in alcohol consumption shows practically no sentiment in favor of prohibiting the sale of alcoholics. An agitation in favor of merely limiting the number of drinking places has not yet been able to produce results. Wine is very generally regarded as a healthful drink. The government openly favors the wine-growers and is under their dominion to an extent that has thus far rendered fruitless all attempts to reduce the alarming alcohol consumption.

BELGIUM's chief temperance agitation is also concerned with limiting the number of saloons. They have succeeded in forbidding the sale of absinthe, as has Switzerland, but not yet France.

(Continued on front inside cover)



# Class-Room Helps

Conducted by Edith M. Wills

## The Brain and Its Enemies

**I**N CONNECTION with the study of the brain and nervous system use the article (Dr. Chapple, p. 5) showing how the brain (speaking particularly of the cerebrum) and personality develop and how alcohol works such harm.

On a sheet of paper of sufficient size to be easily seen by the class sketch the drawing (p. 12a) excepting the conical representation of the brain center layers which should be drawn on stiff paper and the sections separated. After the text-book work on the brain has been covered, the first part of the article may be read or explained by the teacher and the sections attached to the drawing of the head as the description of each is given. (The pupils should, of course understand that these brain cells are not actually added in layers, one at a time, for to some extent they are developing together just as a family of several children would all be growing at the same time.)

Thus the sections representing the heart (1) and the lungs (2) would first be placed. Next that representing the locomotion centres (3).

Question the class regarding them. At what age does this center appear to begin working? How soon can the baby control the muscles sufficiently to perform some definite, desired muscular action? Speak of the process of walking and similar early controlled movements and lead the class to see that the child must *learn* to walk as well as to perform any other complete muscular action. In other words, its brain centers have to teach its muscles to contract and expand in such a way as to lead to successful and coordinated movements of the limbs and hands. Muscular precision such as is needed for fine mechanical work, violin playing, marksmanship, baseball, etcetera, means a nervous system carefully trained and perfectly controlled. Call attention further to the way in which the nerve centers register and retain the results of this training (practice) so that they are never wholly lost while the body remains in a normal condition. (Bear in mind, of course, the importance of the cerebellum in coordination.) Skill depends upon this power of the cells to "learn" and to "remember."

Next attach the section representing the knowledge centers (4), which comprise the "impressions" made upon the brain cells through the avenues of sight, hearing, touch, taste, smell. When do these begin work? Direct the children to observe babies and young children to see when they begin to use the senses with any apparent degree of accuracy; by illustrations such as Helen Keller, Indians, etc., show how these cells and centers can be trained to a very high degree of accuracy and efficiency. Note also that correct knowledge depends absolutely upon the accuracy of the sense impressions. Speak of, or show, some object, as a peach, and ask the class what it reminds them of. It will immediately suggest not only the appearance to the eye, but the smell, taste, feel, etc., of the fruit. Evidently the brain cells which receive these impressions are closely connected with each other, the activity of one starting that of the others. This working together we call *association of ideas*. Show the importance of this power of the mind and of registering in our brain cells only the clean, wholesome and valuable ideas with which to work when any idea or object is presented to the mind.

Lastly attach the section representing the inhibitory centers (5) which also include the cells and centers which have to do with judgment, reason, creating great works of literature, art or mechanics, self-control, the will, high ideals, etc.

Lead the class to see that of all the cells in the body these are infinitely the most important and it is only by means of the functioning of the inhibitory cells—self-control and will-power—that any person's life can be made in the least worth living. Without some self-control one could not live wisely enough to keep even passably well, he might yield to every foolish impulse, say "yes" to every temptation so that no unwise or wrong act would be avoided, no wise or right purpose carried out. Excellence in scholarship, sport, or any vocation would be impossible.

On the other hand, emphasize the idea that these cells and centers may be trained and strengthened to an almost unlimited



degree. The judgment to plan a great course of action and the will to carry it out through many years of distraction, hardship or opposition these, the fruit of rigidly training these cells all through youth and early maturity, have made the lives of many sublimely useful and noble. Health, happiness, success, noble character, all become possible if these cells are early trained aright. (Point out the simple rules by which this training can be given.)

#### UNDOING THE WORK OF YEARS

HAVING thus by rather full discussion impressed each pupil with the supreme importance of the higher centers and of the laborious task which nature and the individual have had during perhaps a third of a lifetime to build up this marvellous instrument of personality, pupils will more clearly apprehend how, why and to what extent even very small amounts of alcohol can temporarily or permanently undo the work of years.

Do not fail to make it clear that alcohol is a *drug*, that it is just as certain to produce its natural drug effects as is an opiate, strychnine, or any other drug. When once a person has taken into his system a suitable dose of morphine, every one knows that the drug will operate to produce stupor, for that is its characteristic action. The tissues of the body, the will and reason are entirely powerless to resist those effects. Nobody would blame a person for going to sleep after taking morphine.

Similarly, alcohol is a drug, a narcotic, and once it is taken into the human system its drug effects are as sure and as unescapable as those of morphine or any other drug. Hence it is as absurd to say of the drinker "Why doesn't he control himself?" as to say of the morphine drugged one, "Why doesn't he stay awake and attend to his business? He needn't go to sleep if he would just exert his will power."

Make it clear why narcotics such as opiates and alcohol affect the nervous system first and most powerfully. Recall the nature of the substance largely composing all those cells—the fat-like substance (called lipoid)—which is easily soluble in those drugs (Meyer, Overton), far more so than are any other body cells. In the main, speak only of the effects of small quantities. Even the children understand that heavy drinking is highly injurious.

Using again the head with its brain center sections in place, follow the general plan of the process of intoxication given by Dr.

Chapple, taking off successively the sections representing the five "centers." This may be done somewhat briefly, or, it may be extended somewhat along the lines mentioned in further suggestions. In any case bring in those points which carry most appeal to the class in hand. Always emphasize the point that it is, like opiates, inherently a habit-forming drug and therefore any use of it is dangerous.

*Inhibition Centers.* The last to come is the first to go and the amount needed to affect this center is exceedingly small for according to Kraepelin one-third of an ounce of alcohol is the maximum dose which can be taken without appreciably depressing the mental functions. Why, when a young man takes one glass firmly intending not to take another, does he often do so? Mention some ways in which the impairment of this center would hamper a young man's ability and prospects. Quote experiments of Smith, Kraepelin, Furer, Vogt and others proving that an amount of alcohol as small as that in a bottle of beer or half a bottle of wine impaired the quickness and accuracy of mental work:—the higher the grade the greater the impairment—as well as impaired self-control. Note what Huxley, Edison and others say to the effect that "wine never creates anything."

*Knowledge Centers.* Note in addition to what Chapple says and partly as an explanation of it, the fact of proof from experiments that very small quantities of alcohol distinctly impair sight, hearing and sometimes the sense of touch. Relate these facts to railroad and other accidents (the recent terrible one on the Lackawanna R. R. is a case in point); to sports like marksmanship, baseball etc. Note also the German experiments showing that the associations of ideas are markedly impaired and rendered inferior.

*Locomotion Centers.* What explanation here of the fact that the drinker's hands tremble, that Lorenz, Treves and many other surgeons avoid all alcoholics? That the eyes often see double? That fine mechanical work often becomes impossible?

Remove lastly, the sections representing the heart and lung centers, noting that though these are seldom totally paralyzed yet the paralysis is frequently very serious as the case of any drunken man would show. Emphasize the point that, practically, when the hand carries alcohol to the lips it also does what we have been doing, voluntarily removes, in a greater or less degree, the power of the higher centers to control ac-



tion, to perform high grade mental work, to secure fine muscular precision.

#### CHRONIC ALCOHOLISM

SEE that it is plain to all pupils that the frequent repetition of this temporary injury to the brain must of necessity produce permanent damage and in the same order, the higher centers first. Therefore, craving, habit which often becomes uncontrollable,

is induced while at the same time the will power to stop is steadily undermined.

Compare the splendid hero, John, abstainer from birth, athletic, great mentally and spiritually, with drinking Herod whose self-indulgent habits had progressively lowered his mental and moral powers. Dr. Chapple's article and that preceding will go far to explain how this occurred. The latter may be followed in brief in presenting the lesson. With girls emphasize the danger of immorality through impaired self-control. Note the article following, and supplementary material elsewhere for adult classes.



## Methods of Teaching Abstinence in Day and Sunday Schools

BY CORA FRANCES STODDARD

THERE is no royal road to securing the practice of total abstinence from intoxicating drinks or tobacco, yet there are certain general facts and principles, which once grasped, can be applied in detail to most individual cases.

### THREE ESSENTIALS

THE DEFINITE PURPOSE to make every pupil an intelligent abstainer must be placed first in the list of methods. The Sunday School rightly gives temperance an inherent place in its program. The drug habit always tends to dull the sense of moral responsibility; it cuts directly across our work. Training for abstinence, therefore, affords one of the best opportunities to build into the lives of our pupils not only adequate knowledge, but courage of conviction, integrity of purpose, resoluteness of will. These qualities woven into character as regards the use and sale of alcoholics are pretty certain to be exhibited in other directions.

Dr. Alex. Lambert tells us that a third of the young men brought to the alcoholic ward of Bellevue Hospital began drinking before 16 years of age; two-thirds began before 21. Dr. Meylan at Columbia found that among college men, 95 per cent. of the smokers began the habit between 14 and 19 years. This means that somewhere there had been a failure in the training of the vast majority of these young men. Either they had received none at all, or what they had received had failed so to grip conviction and will that abstinence resulted. No Sunday School should be content with its methods unless its pupils go out into the world abstainers, not by chance but by intelligent conviction.

THE WELL-INFORMED AND CONVINCED TEACHER is second in importance for the results of our work will largely depend upon our own attitudes. If we really believe that

our pupils ought to be trained to abstinence—not as self-sacrifice but as self-mastery—we shall be eager to secure it in their lives; and we shall try to inform ourselves of the wealth of facts available that will make us welcome the temperance lesson as an opportunity. The adequate knowledge will help to make us wise in so implanting the truth that it will "wound the inclination to do the wrong thing," forestall the forming of inaccurate conclusions.

THE DEFINITE PLAN naturally follows for while the opportunity of the Sunday School to train the children is a great one, specific temperance work is necessarily limited to three or four half-hours a year. Let us, then, emphasize the things that are really important.

### FORCES PERPETUATING THE ALCOHOL HABIT AND TRAFFIC

LONG-ESTABLISHED SOCIAL CUSTOMS constitute the first of the two chief forces which perpetuate the habit and traffic with which the problem of abstinence is concerned. Much literature, our novels and our magazine stories are largely permeated with the idea that alcoholic beverages are desirable or necessary social adjuncts. To the young people who read them, drinking is often introduced as an expected concomitant of the celebration of athletic events, of fine living, of genuine hospitality, and it is just here that the temptation to drink chiefly presents itself to them, often under circumstances in which they feel it would be discourteous, possibly a sign of weakness, to refuse.

How shall we anticipate and undermine this strong temptation? First we may substitute the knowledge of growing new customs—the permission of the rulers of England and Germany to drink their health in water, the growing custom among some of the strong fraternal and professional organizations to refrain from serving drinks, etc.

We may use the business argument in telling of the growing distrust of the effi-



ciency of the drinker. Use concrete instances in helping pupils to see that so far from abstinence being "an old fashioned notion" as one college youth called it, it is now the new fashion.

The scientific fact is needed to correct wrong impressions when, for instance, wine or beer seems to promote sociability. Pupils need to be forewarned by wise teaching that increased good fellowship in the use of alcoholics simply means that the alcohol has had a paralyzing influence on self-control, slight to be sure, but as real as that which shows itself in alcoholic stupor.

We can use the social appeal, our responsibility for each other, the woman's influence in society, the man's in making it easy for another to be led astray.

There is, too, the appeal to the heroic which with some has its influence, expressed not long ago by Consul-General Wilder of Shanghai, when he said of this very custom:

"It is a fine thing to help an individual man or woman, but it is divine state-craft to build up a good custom or break down a bad one that shall control the actions of men long after individuals are forgotten."

Effective abstinence teaching, therefore, will direct effort at undermining the hold of the drinking custom by scientific fact, by knowledge of business requirements and changes in custom, by appeal to instincts of social helpfulness and to the heroic, modern chivalry.

FALLACIES ABOUT DRINK constitute the second force perpetuating the drink habit. Deeply rooted in human beliefs, they are also diligently fostered by a pro-liquor propaganda put forth by eager dealers.

The belief that alcohol helps one to do hard work, that it strengthens or stimulates, that drinks like wine and beer are harmless, that inefficiency or physical and mental injury follow only heavy drinking—here with their many ramifications are the strong roots of ignorance that firmly fixed in the soil of social custom not only permit but encourage the growth of the drink habit and traffic.

For this reason, the successful teacher must have at command, ready knowledge of the facts which the science of the past quarter-century affords showing not only that these beliefs are untrue, but why they are untrue.

This method of teaching—"by facts, not by exhortation"—is practically forced upon us, even if there were no other reason for using them, by the methods used to extend

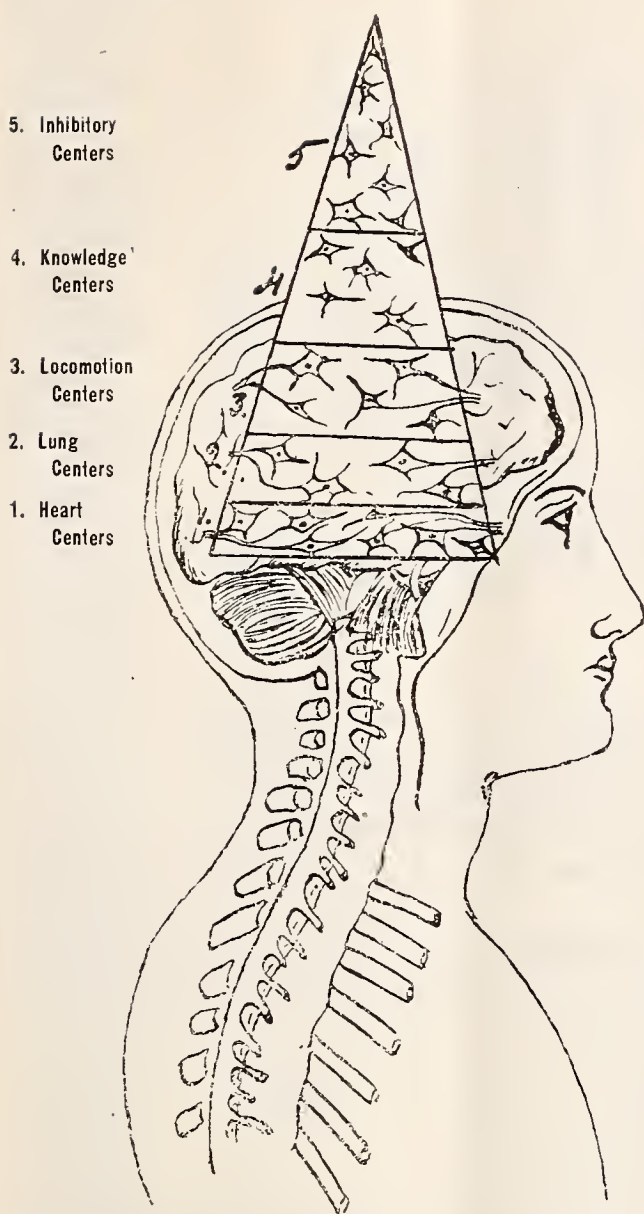
the use and sale of liquor. When the billboards and the press and the advertising letter are all emphasizing the claim that these drinks are harmless and beneficial, they are using the physiological argument, and if that influence is to be counteracted we must use the scientific fact to meet it. Link it up with the various practical questions of efficiency and health, and we have given our pupils a standard by which they can form not only their personal decisions, but can guide intelligently their actions as citizens in dealing with other aspects of the liquor problem.

In emphasizing this use of the scientific fact, I am sure I shall not be understood as undervaluing the moral and spiritual appeal. We must have them all. But if we confine ourselves to moral and spiritual exhortation, we are ignoring some very practical questions which pupils will have to meet and concerning which they are already forming judgments.

On the other hand, the scientific fact need not be of the dry-as-dust variety. Indeed, much of this abstinence teaching is best done in concrete form of incident, experience, description of changing customs, into all of which the scientific explanation may be deftly woven. The scientific fact gains force in being linked up to some business or social fact which in turn it illumines and explains, and so gives a working principle for future guidance. Mere knowledge, it is true, will not accomplish everything. There must be willing and the purpose to do before education can be complete. But as reasonable beings we tend to act upon our knowledge of facts if they are so presented as to contain the element of interest. And when interest is won, we have gone a long way toward capturing the will.

Here then, are three essentials to guide our abstinence training. Everything that can be said of the best methods of training a child in any matter applies equally well to this subject, but these three we must have: The definite aim to bring the child to the position of intelligent, voluntary abstinence; the informed, convinced teacher; a definite plan to build into the child's intelligence and conviction the facts and principles which will enable him to understand and to withstand the two great forces of the drink evil—social customs and erroneous beliefs. We may elaborate these essentials in a multitude of ways, but they should form the groundwork of our plan for winning the girls and boys to intelligent personal sobriety, and to their own definite purpose to oppose the drink evil.





DIAGRAMMATIC SCHEME OF THE ORDER OF DEVELOPMENT OF BRAIN CENTERS.—(*Chapple*)

"Education does not make a man immune to the temptation of appetite, but it ought to make him more keenly aware of its danger than men of untrained intellect."

"With a few extraordinary exceptions, no inventors, artists, poets or seers are to be found among alcoholics."—CUTTEN.

"All high mental flights among students are brought down by the drinking so zealously practiced particularly in the student associations."—Forel.

The British Society for Prevention of Cruelty to Children in ten years has dealt with cases of cruelty affecting 1,276,000 children. The directors declare in the latest report (Mar. 1912) that "It is not an exaggerated estimate that 90 per cent. of the cases of neglect inquired into by the society's officers are due to habits of immoder-

ate drinking on the part of one or both parents."  
—INTERNATIONAL GOOD TEMPLAR.

A series of careful experiments made by Cutten in the Yale Psychological Laboratory (**PSYCHOLOGY OF ALCOHOLISM**, pp. 126-140) proved that the alcoholic is much inferior to the normal person both in his command and control of himself and is lacking in ability to put forth effort.

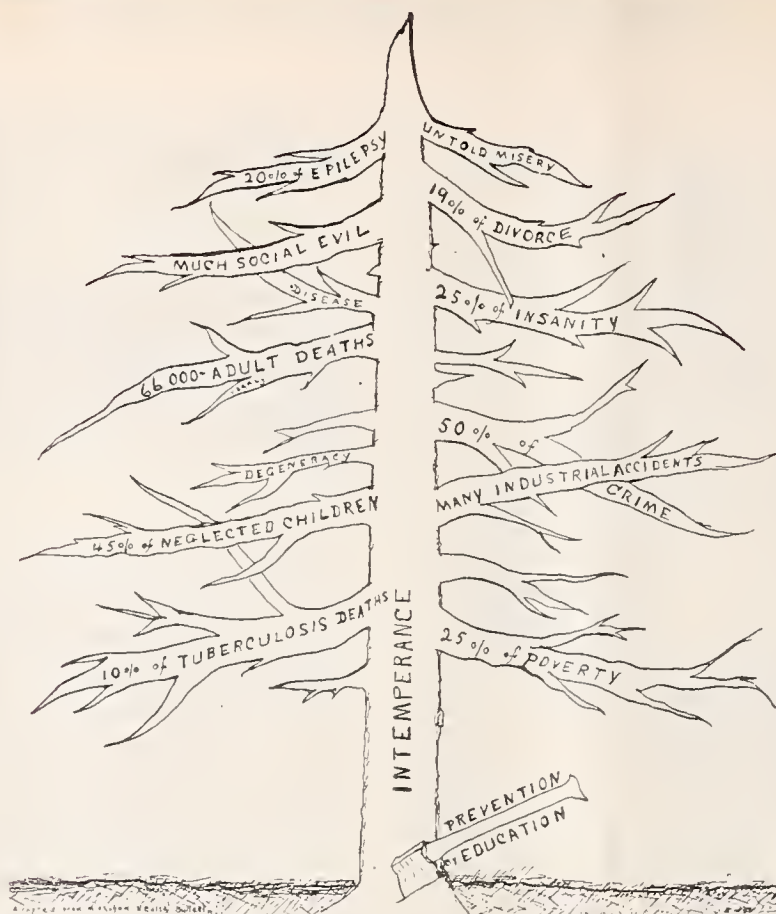
**VISION**—Dr. Ridge proved by experiments on ten subjects that as little as one-fourth of an ounce of alcohol reduced the average range of vision from 9.4 feet to 8.5 feet or 9 per cent.; and Kraepelin proved by thorough experiments that one-half hour after the use of an ounce of spirits the range of normal vision was reduced from 30 feet to 18-20 feet or about 35 per cent., that forms and shapes were blurred and indistinct except when seen very near, and that colors were obscured or lost altogether, red lines particularly becoming indistinguishable—Cited by CUTTEN in **THE PSYCHOLOGY OF ALCOHOLISM**.

**HEARING**—Kraepelin's experiments showed that where normally the sound of a watch ticking could be heard at 30-40 inches from the ear, in a half hour after alcohol was taken the watch must be moved to within 10-15 inches. Certain sounds could not be distinguished and certain tones were confused or lost. This was especially true of musical tones.—Cited by CUTTEN.

**TASTE AND SMELL AND TOUCH**.—Frolsch and Kraepelin found that both taste and smell were seriously impaired by the use of small amounts of alcohol, and other experimenters found that touch and the temperature and muscular sense were also impaired by the use of a small quantity of alcohol.—Cited by CUTTEN.

**THE LONDON LANCET** after speaking of the occurrence of several railroad disasters in which drink was probably a considerable factor, reviews some of the experiments just quoted and continues: "When it is further borne on the mind that, at the same time that it thus obscures the perceptions on which judgment is founded, alcohol also accelerates the motor impulses which translate that judgment into action, it is easy to see how much it may contribute, and doubtless, very often has contributed, to the commission of fatal errors in the driving of an express train or a motor."





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— *Continuing the* —  
SCHOOL PHYSIOLOGY JOURNAL

## WAVE AND TIDE

O N THE far reef the breakers  
Recoil in shattered foam,  
While still the sea behind them  
Urges its forces home;  
Its song of triumph surges  
O'er all the thunderous din,  
The wave may break in failure,  
But the tide is sure to win.

The reef is strong and cruel  
Upon its jagged wall  
One wave, a score, a hundred  
Broken and beaten fall;  
Yet in defeat they conquer,  
The sea comes flooding in,  
Wave upon wave is routed,  
But the tide is sure to win.

O Mighty Sea! thy message  
In clanging spray is cast,  
Within God's plan of progress  
It matters not at last  
How wide the shores of evil,  
How strong the reefs of sin,  
The waves may be defeated,  
But the tide is sure to win!

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# Scientific Temperance Journal

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BOSTON, OCTOBER, 1912

No. 2

**"What is the race to be perpetuated for unless to hand forward that fabric of inspiring ideals which past generations have accumulated, to furnish which our generation shall have contributed"**

—*Wm. D. Parkinson*

## \*Alcohol as a Predisposing Cause to Accidents and Occupational Diseases

BY WILLIAM F. BOOS, M. D., PH. D.,

Biologist and Pharmacologist Massachusetts General Hospital, Boston.

A LARGE percentage of industrial accidents, is undoubtedly due to alcohol. Just how great this percentage is for the United States it is impossible to say at this moment because the American employers of labor have made no efforts to obtain statistical information concerning this most important problem.

### EXCESSIVE ACCIDENT RATE OF DRINKERS

At present we must, therefore, look to Europe for actual figures. Those of one German physician are interesting. He finds that alcoholic workmen between the ages of 25 and 44 years have over three times as many accidents resulting in injuries as all the workmen put together; and that the days of illness resulting from such injuries are nearly four times as many as those incurred by all the workmen. As the result of other German studies it was determined that if the accidents caused by the use of alcohol could be eliminated, 7 per cent. of all accidents would be prevented and the saving to the German sick benefit societies for the year 1897 alone would have been \$1,071,000.

Most industrial houses confine their efforts to a prohibition of intoxication during working hours. Drinking during working hours is also forbidden by many employers but there are no effective methods in use which prevent surreptitious drinking up to the point of actual intoxication. When this stage is reached the employee's condition is easily recognized and he is promptly dismissed. In this way gross intoxication may in itself act as a safeguard against accidents but the serious damage may have been done long before the man is actually drunk. It is the forms of alcoholism which are not signalized by intoxication on the part of the workman that are the most serious as a predisposing cause to accidents. Two such types of alcoholism which are very common are the week-end drinker and

the habitual daily drinker. The latter is frequently described as the "moderate" drinker just because he doesn't get drunk.

The week-end drinker figures prominently in the accidents which occur on Monday, or, in general, the day following a holiday, when accidents are much more common than on the other days of the week. Monday accidents result from the paralyzing effect of the Saturday night and Sunday debauch, the "hangover" from which may last for twenty-four hours and longer. The victim with a "hangover" appears normal to the casual observer; he is not, however, in complete control of his faculties and he is, therefore, much more liable to have an accident.

### "MODERATE" DRINKERS GREATEST MENACE

The habitual drinker presents, perhaps, the greatest danger. The quantities of alcohol he takes each day are not sufficient to produce intoxication but they suffice, nevertheless, considerably to reduce his alertness. Drinkers of this class suffer a loss of acuteness of hearing and of vision and all their mental processes are retarded; consequently this class of men are less careful and accurate in their work as also slower to perceive danger. In some individuals the daily use of alcohol produces color-blindness. The seriousness of this condition in railway employees is self-evident.

The impairment of faculties produced by the habitual use of alcohol is due, as has been stated above, to a "hangover" or paralyzing effect which may continue for twenty-four hours or more after the ingestion of the alcohol. In time a gradual destruction of vital tissues in the central nervous system takes place, the disturbances described gradually become permanent and the individual is rendered less and less responsible as a workman.

The continued use of alcohol also retards tissue repair after injuries and much

\*Author's abstract of his address at the International Hygiene Congress, Washington, D. C., Sept. 27, 1912.



time is lost in this way by both workmen and employers. Injuries received by habitual drinkers are furthermore very apt to call forth an attack of delirium tremens which may seriously threaten life.

From the employers' point of view, alcohol as a predisposing cause of industrial accidents threatens today to become an economic issue of the greatest importance. A number of states have recently passed legislative acts similar to the Workingman's Compensation Act which went into effect in Massachusetts on July 1st, 1911. This act forces employers to compensate their employes for injuries or losses due to any and all accidents occurring during working hours. Heretofore, a workman could recover from his employer for such accidents only as were due to negligence on the part of the employer or any of his servants for whom he was directly responsible; now the workman may recover no matter whether the accident was due to his own carelessness or that of some other employe.

As things are today in our industrial world this act will cause unjustly much economic hardship to employers, but in the end it may prove to be our most powerful weapon to fight alcoholism among the working classes. The employers of labor will see themselves compelled in self-defence to take none but responsible men, that is, men who do not use liquor at any time. The influence of the act will penetrate into the workman's home; the father will tell his sons that drinking will mean discharge from work and inability to obtain re-employment. Young women will refuse to marry men who drink at all for fear that they and their children might suddenly be left without support.

#### HOW THE DRINKER ENDANGERS OTHERS

But this is all of the future; there are some present day conditions which can not wait, which, for the sake of humanity and civilization must be changed at once. Foremost among them is the state of things which led to the accident on July 4th at Corning on the Lackawanna Railroad. The seriousness of this accident does not lie so much in the loss of thirty-nine lives because, it is said, an engineer was drunk, as in the fact that it was possible for an engineer to enter his cab in a drunken condition. What we need is a thorough control of all railroad employees. The first step in this direction has been taken by the management of the elevated and underground railways of Berlin, which employs careful and responsible officials

to whom all the men must report before they go on duty. It would not be difficult to supplement the official's inspection with a few quick but searching psychological tests, to be used especially when engineers, motormen and switchmen are concerned. Such a system of inspection and psychological examination should also be introduced into all the trades in which the workmen are constantly exposed to the dangers of machinery in motion.

#### ONE CAUSE OF OCCUPATIONAL DISEASES

The use of alcohol on the part of the workman presents an aggravating cause to certain occupational diseases. This is particularly true of the trades which bring the workman into close contact with lead and its compounds, Oliver and Hill having shown that alcoholism renders the organism more sensitive to lead poisoning. Alcohol is one of the common predisposing causes to tuberculosis; its use is therefore especially dangerous to workers whose trade exposes them to stone, coal, or steel dust, since these trades seem in themselves to predispose the workmen to pulmonary diseases. The heavy drinking of men connected in any way with the production and distribution of alcoholic beverages is well known. If, therefore, the continuous use of much liquor predisposes to consumption, there should be a high death-rate from this disease among workmen in this class. As a matter of fact, one authority finds that men who work in the liquor trades show a death-rate from tuberculosis which is nearly twice as great as that of the average among other trades, with the exception only, of longshoremen, teamsters and coachmen. The high death-rate from consumption among the latter class whose outdoor work is in itself most healthy is likewise due to the notorious drinking habits of the men in these trades.



#### Spirits or Beer

THE argument that the evils of intemperance follow only in the wake of spirits and are to be avoided by the use of beer receives another hard knock from the report of the Belgian head of the statistical department. He shows according to a writer in *La Clariere* (July 21, 1912) that the increase in crimes of violence was greater among the inhabitants of Flanders than among those of Hainault. But in Flanders the popular drink is beer while in Hainault, among the Walloons, it is gin. "If it is true," says M. Maertens, a notary



of Gand, "that intemperance is limited to consumption of gin, [or distilled liquors] then its evils must reign in the gin-drinking regions and be absent from the other sections where only beer is used. And where these beer-drinking sections have existed as such for centuries they ought to shine like oases in the desert compared with the others.

"But, unfortunately, if we look at the facts we find this is not the case. These beer regions are from all points of view, moral, physical, hygienic, etc., as bad as or worse than the gin-drinking regions.

"In both alike are found suicides, accidents, insanity, fighting, murders. If one has any doubts about it, an examination of the criminal records in the beer-drinking and in the gin-drinking regions will convince the most incredulous.

"We are not to conclude from this that beer is more injurious than spirits, but rather that the consumption of beer has so developed in certain sections that the consequences of alcoholism are there more marked than in gin-drinking regions where they drink less."—*Translated for the SCIENTIFIC TEMPERANCE JOURNAL.*



## The True Role of Alcohol

BY PROF. AUGUST FOREL, DR. MED., JUR., AND PHIL.

**N**UTRITIVE materials (or foods) are all substances which have shown themselves to be fitted by a long phylogenetic process of adaptation for the building up of the human body and the support of its functions, and by the use of which experience shows that the body flourishes without any symptoms of poisoning. To these belong water, most albuminous bodies, starchy meals, fats, sugar, and vegetable salts, as contained in fruits, vegetables, roots, cereals, and in animal foods. The statement that a poison can be at the same time a food is a mere playing with words. To be sure many poisons dissolved in the body can form fat and produce some phenomena similar to the effects of foods; yet as soon as they produce a temporary or permanent change in the vital functions or the anatomical constitution of the protoplasm they can be called foods no longer.

On the other hand, also, many of the best foods, when eaten to excess so as to overfeed the tissues, can form toxins and thus act as poisons indirectly; but that is a different matter and can be avoided by moderation in eating and by reasonable exercise. Certain chemical substances have a poisonous effect with some animals but not with others. With these perhaps we may think of the possibility of a gradual accommodation, but never with those substances which, like alcohol, act as a protoplasmic poison with all living organisms everywhere. What now has experience shown to be the principal poisons for the nervous system?

There are two sorts of poisons: (1) Those which are easily dissolved or decomposed and thus soon disappear from the system. Yet if these poisons are frequently repeated they can leave lasting disturbances behind them. Thus when they are taken for

the first time they cause acute poisoning, but when they are regularly repeated the poisoning is chronic. (2) Poisons hard to dissolve or decompose, mostly metals, whose effect is slowly progressive from the beginning and very chronic.

*Poisons easily soluble* include a large number of more or less rare poisons, like coal gas or poisonous mushrooms, which are usually taken into the system by accident or mistake and generally act upon the nervous system by paralyzing or stimulating its functions, more rarely by decomposing its material. They act once for all. The result is either death or a cure; they seldom leave a lasting effect behind them. Such poisons are relatively unimportant, because people are very much afraid of them and avoid them.

Tremendously important, on the contrary, is the whole class of *narcotic* poisons, especially those among them whose habitual use has unfortunately become or threatens to become a custom. The worst of these are alcohol, opium, morphia, ether, cocain, and Indian hemp. At first, they all cause a pleasant acute poisoning of the brain, which dulls or inhibits strong painful sensations, gives the illusion of happiness or good fortune, in its first period often causes a certain excitation in the motor field, agreeably titillates lower impulses and feelings but at the same time injures associations, the judgment and discretion, consistent willing, and the finer ethical and aesthetic feelings.

Moreover, all these poisons in common have the property of engendering an appetite or pathological desire, of different strength with different persons, for repeated poisoning and larger doses. In this way their use is spread in society and their ef-



fects on individuals strengthened. They lead to regular poisoning epidemics. At the same time, their repeated use produces a slow degeneration of the central nervous system and often of other tissues too, and a slow protracted sickness, though to be sure these effects develop so slowly when the doses are small and can proceed with such slight visible disturbances that society gets accustomed to it and does not notice the inferiority which it produces.

Yet with stronger doses, the chronic poisoning leads to deep changes of character, amounting sometimes to complete mental alienation or even dementia. The chronic use of narcotics (such as alcohol, morphia or opium) makes people more or

less cowardly, brutal, and ethically defective according to the nature of the poison; while the acute poisoning (the drunken fit) is like temporary insanity.

With us up to the present time people have not known much better than to preach moderation and practice more or less immoderation, instead of combating the use of this social poison. People are unfortunately blinded when they give themselves up to a narcotic; they persist in self-deception and the general degeneration remains for the most part unnoticed because individuals only begin to notice it in their own cases when it has already gained considerable ground.—From "*Nervous and Mental Hygiene*."



## The Economic Side of the Alcohol Question

BY PROF. MAX KASSOWITZ, M. D., VIENNA

ALCOHOLIC drinks cost the German people three and one-half times as much as the army and navy together, more than six times as much as the total workingman's insurance and seven times as much as all their public schools. With the money that is spent in the German Empire in one year for this deadening substance the national debt could be completely wiped out and the interest on the same be saved for all time.

### TO WHAT ADVANTAGE?

Alcohol is a source of pleasure only to those who have acquired an artificial craving for it. The property of creating, after frequently repeated use, a craving for new and ever-increasing doses is one that alcohol shares with all narcotics and with many other substances; with opium, morphine, chloral, veronal and other sleep-producers, as well as with cocaine and nicotine, the deadening effects of which are less pronounced. No one thinks of calling morphine a source of enjoyment, although the bliss which his hypodermic affords the morphinist after long abstinence outweighs a hundred times that which the alcohol habitue derives from his customary dram. No one finds the first attempt to use nicotine a pleasure, but the habitual smoker finds it much more difficult to refrain from his accustomed nerve poison than the habitual drinker finds the withdrawal of alcohol.

With the exception of alcohol, those unaccustomed to the above-named poisons derive from them no actual enjoyment. It is only the satisfaction of the artificial craving that figures as a pleasure to those who have become accustomed to the poison.

### THE INDIVIDUAL'S LOSS

On the economic side, what is true for society is true also for the individual, if he takes part in the consumption of the products of fermentation. But here one must make a distinction between the well-to-do and the not well-to-do.

This differentiation is, of course, apart from the physiological effects of the narcotic, because these are the same in both cases whether a given amount is consumed in the form of costly wine or fine liquors, or in beer or common spirits. The old opinion that the fusel oil contained in the worse kind of spirits exerted a specially injurious influence has long been abandoned. It is now known that the usual poisonous effects are due entirely to the one substance, alcohol, which is present in all these different disguises.

Economically, however, it is not the same if from a yearly income of 20,000 marks (\$5,000) one spends a thousand or two thousand (\$250-\$500) for alcoholic drinks, or if from an income of one-thousand marks (\$250) 100 (\$25) or more is sacrificed for the same purpose. For the well-to-do man still has enough left for food housing and clothing and even for modest luxuries. Financial need can only be brought about by alcohol in these families when the head of the family—as is not infrequently the case—suffers hardening of the arteries, or apoplexy or other evils of chronic alcoholism before his children are able to earn a living and obliges his family through insufficient capital to fall back upon a pension or to a retrenchment of their accustomed manner of living.



But if the wage-earner uses only a tenth of his scanty earnings for alcoholic drinks, then the absolutely necessary expenditures have to be cut down and the saving of a penny is in most cases a total impossibility.

Investigation in various countries has established beyond doubt the fact that in these classes the expenditure for alcoholic drinks amounts not infrequently to a fifth, and in some cases, to even more of the wages, and it is easy to imagine what this means for the head of a family and those dependent upon him. Insufficient food, bad housing, low resistance against disease, premature disability for work or the untimely death of the family support and the complete misery of those left are the almost unexceptional consequences of such an unhappy combination. This the pharisaical explain as just punishment for the victim of the craving for drink, but in the light of reason a social regulation which not only permits the general drinking customs, but promotes and propagates them in every possible way, is alone responsible for the immeasurable evil that from the nature of the case must mount up with limitless extension of the insidious poison.

#### TOTAL ABSTINENCE THE ONLY EFFECTIVE MEASURE

How are these evils to be remedied and is there a possibility of mitigating or entirely abolishing them?

Perhaps the following facts may serve as an indication of the direction in which help may be found.

Of 831,000 paupers who were enumerated in London in 1888, 75 per cent. had become such through drink, while one winter when the cold was unusually severe and employment unusually scarce there was not

a single application for public aid from 7947 hand workers and laborers who belonged to total abstinence societies

All those who have studied the alcohol question, not simply superficially but thoroughly, or better still, by actively taking part in it, have become convinced that the preaching of moderation,—of which there has always been no lack—has not only had no discernible consequences, but has failed to stay in the least the continuous growth of the evil. For, although in the better circles pronounced alcoholic excesses may have become less frequent, the descriptions of student drinking contests prove to us that they have by no means ceased. The constant increase in the production of alcohol may also be taken as a measure of the drinking customs. It means that with us in middle Europe, the dominion of the drinking customs, with all their previously described consequences, is not yet demolished, but in other countries where there are not only many abstainers, but where these are united in large active organizations, the general attitude toward the use of alcohol has changed. Those who still use it are conscious that their course finds no justification among large circles of their fellow citizens.

Our first steps towards emancipation from alcohol must therefore be the same means that have proved successful in these countries. Those who abstain from alcohol must not rest satisfied with simply guarding themselves and those belonging to them from alcoholic dangers; they must work together with others holding the same views for the protection of their fellow citizens.—*Translated for the SCIENTIFIC TEMPERANCE JOURNAL. From "Annalen für Soziale Politik und Gesetzgebung."* (No. 6, 1912.)



## The Anti-Alcohol Exhibit at the International Congress on Hygiene

BY THE EDITOR

FOR WHAT is believed to be the first time in the United States, alcohol has a recognized place as a factor in public health problems in the Exposition of the International Congress on Hygiene held at Washington, September 16 to October 5.

Early in the year, after the preliminary program of the Congress was issued and was found to contain little reference to alcohol, letters were addressed by the Secretary of the Scientific Temperance Federation to chairmen of various sections asking that the relation of alcohol to the

different aspects of health be given due consideration. As a result, the Federation was invited to participate in the Exposition, and on the program of the Industrial section was placed a paper on Alcohol as a predisposing Cause to Accidents and Occupational Diseases by Dr. W. F. Boos, of Boston, a physician of national reputation, and a member of the Federation's Publication Committee. (See p. 13.)

For several years the German, Swiss, and Swedish anti-alcohol societies have used exhibits effectively, reaching by con-



crete illustrations thousands of persons who would never attend a temperance lecture or read a temperance leaflet.

Hitherto in the United States very little has been done in this direction. There have been a few instances of small local exhibits and the Scientific Temperance Federation has used widely in this way its sets of colored diagrams, but the time had come to use even more graphic illustrations and on a larger scale.

The exhibit at the International Congress on Hygiene represented by wooden models, dolls, pictures and diagrams, facts concerning the relation of alcohol to the frequency and duration of sickness, to mortality, insanity, suicide, degeneracy and heredity, poverty, crime, divorce, immorality, desertion and non-support of families, family budgets, infant mortality, education, physical and mental working ability, accidents, disuse of alcohol in medicine, etc. Data was gleaned from German, Swedish, Austrian, Swiss, Australian, British and American sources and put into as simple, concrete and graphic form as possible.

#### THE WASTE OF FAMILY RESOURCES

In bringing together material on such a wide range of topics one is impressed with the fact that at almost every point drink touches in some vital way the home, the integrity of which is the very substance of sound social and national life.

The direct loss to the family budget appears in the Exhibit in an attractive picture of money bags of various sizes representing German family incomes ranging from \$387 to \$866 annually. But the bags leak, and through a hole in the bottom is dropping into the beer-steins the money spent for liquor, \$20, \$21 and \$24 respectively, from workingmen's incomes, and \$17.75 and \$19.75 from the budgets of official families.

The budget of American families in New York and Washington are graphically shown to lose from \$18 to \$60 annually for drink, and when one considers that all investigators believe that the amounts reported as so spent fall far below the actual expenditure and further, that the statistics given represent an average of both drinking and non-drinking families, it is evident that the expense of drink in the families where it is used must constitute a serious draft upon resources at best too meagre for healthful living.

Four dolls show where the burden of poverty falls heaviest, as they indicate by their relative sizes the proportion of poverty among men and women due (1)

to their own intemperance, and (2) to the intemperance of others. In the first pair, the larger doll is the man representing the 22 per cent. of poverty due to personal use of liquor in men as against the 12 per cent. in women applicants for relief. In the second pair, the poverty-stricken woman with the tiny baby wrapped in her shawl shows by her height the 17 per cent. of poverty among women due to intemperance of others as compared with 3.8 per cent. in men illustrated by the little doll at her side.

#### THE WASTE OF CHILD LIFE

How drink touches the child in the home appears in a scene pictured from a juvenile court room. Three-fourths of the children coming under the care of the Chicago Juvenile Protective Association require such care because of intemperance in others.

The waste of child life through drink is shown in two striking wall models. One hundred baby dolls on each represent the children respectfully of drinking and of sober mothers as reported by Sullivan. Part of them are dressed in the dainty white associated with babyhood, but the ranks are pierced with a sombre pyramid of babies dressed in black, the ones who died,—55 out of the hundred in the case of drinking mothers, and only 23 out of the 100 who had sober mothers.

Near this is a diagram from British sources showing how the deaths of infants from overlaying mount on Saturday night coincident with increased drinking of that night indicated also by increased arrests for drunkenness.

#### THE BROKEN WEDDING RING

The disruption of the family by divorce through intemperance appears in a series of diagrams, based on United States statistics showing a total of 19.5 per cent. of all divorces as due directly or indirectly to intemperance. Here again the greater burden on the wife appears in the total of 26 per cent. granted to women for this cause as against 6 per cent. granted to men.

A series of broken "wedding rings" depicts the extent of intemperance in special causes of divorce to women, as in adultery 13.9 per cent; in desertion 11.5 per cent; in neglect to provide 21 per cent; in cruelty 32.4 per cent.

Significant, too, is the period at which divorce occurs for this cause. The period where the divorce rate in general reaches its highest point is the fourth or fifth year of married life. Divorce for intemperance reaches its maximum twenty years later, showing that but for intemperance one



fifth of the homes broken by divorce might have been saved.

#### THE WAGE EARNERS AND DISEASE

The relation of drink to disease, its frequency, duration, and mortality naturally demanded much attention in a health exposition

The German sick benefit societies' statistics were drawn upon to illustrate the great frequency of sickness in drinkers at all age periods, the longer duration of sickness the excessive proportion of sickness in drinkers in nearly all diseases. Comparison of the alcohol industries with industries in general reveals similar disadvantages to those employed in making or handling alcoholic drinks. United States mortality statistics show, for instance, that in the age period 35-44 years, saloon-keepers and bartenders head the list of occupations whose death rate from alcoholism exceeds the average, while from 20 to 34 years of age the saloon-keeper and bartenders stand next to the highest in alcoholic mortality. The actual rate is undoubtedly higher still, but the United States statistics group with saloon-keepers and bartenders the restaurant keepers, many of whom do not handle alcoholic drinks

Another diagram shows that saloon-keepers, bartenders, brewers, and distillers have a mortality in liver cirrhosis, a large part of which is due to drink, exceeded only by hotel and boarding-house keepers, while in pneumonia they come among the seven groups of occupations which exceed the average death rate from pneumonia.

A striking chart shows that of every hundred men in all occupations in the United States who died in 1908, 15 died of tuberculosis, but among brewers, distillers, saloon-keepers and bartenders, 20 of every 100 deaths were due to tuberculosis.

Two illustrations especially interesting to employers and workmen affected by industrial compensation acts come from German statistics.

The Röchlinsche Steel Works in Germany found in 1908 that the accident rate among their abstaining employes was only 8 per 1,000 workers, while the average for all their employes was 12 per 1,000. In striking contrast with the accident rate of these abstaining employes (8 per 1,000) who were engaged in a hazardous occupation, is shown that of the employes in the brewing and malt business, which is not specially hazardous, 13 per 1,000 as recorded by the official statistics for all Germany. The rate for all occupations in

Germany, 11.6, is not far from that of the average Röchlinsche iron and steel workers, 12 per 1000, and is less than that of the brewing and malting industries. (See chart p. 24a.)

#### A WIDE OPPORTUNITY FOR THE PHILANTHROPIST

It is hoped that this anti-alcohol exhibit, only a small part of which can be described here, may have a wide field for usefulness in the United States, and that some plan can be devised whereby it can be seen in many parts of the country in whole or in part.

A generous giver looking for practical methods of investing his gifts could serve the temperance cause or social betterment no more wisely than by endowing this exhibit with funds enough to enlarge it, to reproduce parts of it in places where the whole can not be used, and to provide a skilful manager to give his whole time to developing it and extending its usefulness. It is not an experimental method. It has been widely and successfully used in the tuberculosis, child welfare, housing, and other reforms in the United States, while the European anti-alcohol exhibits visited by thousands of persons have demonstrated its practicability in the alcohol reform.

New conditions call for prompt use of new methods, and rich America surely will not let go begging for lack of a modest endowment a kind of work that the foreign temperance workers with comparatively small resources have already magnificently developed.



#### A Notable German Society

AT A GLANCE at the work of the German temperance society, the *Deutsche Verein gegen den Missbrauch geistiger Getränke*, as reported at its annual meeting last June, shows something of the scale of educational work on the alcohol question now being done in that country. This society however, is only one among three large general societies; besides, there are numerous professional abstinence organizations of clergymen, physicians, teachers, merchants, railroad men and those in other callings.

The *Deutsche Verein* has now 230 local unions, issues four regular publications, one *Die Alkoholfrage*, an important international monthly review containing articles in French, German and English by prominent scientific men and sociologists in England and America and the countries of contin-



ental Europe. The combined circulation of the four publications last year was 73,800 copies, besides two special numbers, one of 145,000 and the other of over 100,000 copies. It circulated over a million copies of Quensel's instruction cards and supplied the the army and navy recruits, as it does every year with the little pamphlet *Alkohol und Wehraft* (Alcohol and Military Efficiency), which has been approved by the military authorities. It keeps in the field a traveling anti-alcohol exhibit which was visited

last year by 50,900 persons, including 19,456 students, and maintains a standing exhibit in the Museum for the Workingmen's Welfare in Charlottenburg. It promotes a movement for the better care of inebriates, for whom there are now 165 institutions for treatment in Germany.

The German genius for organization comes out strongly in its grapple with alcoholism, and the results are bound to tell. *Translated for the SCIENTIFIC TEMPERANCE JOURNAL.*



## Memorial of Physicians Remonstrating Against the Restoration of the Army Canteen

[Reference was made a few months ago to the petition to Congress signed by physicians asking for the restoration of beer selling in the American army. That by no means all the leaders of the medical profession are in favor of this measure appears from the following protest against the army beer addressed to Congress by about one hundred physicians, largely professors in medical schools or holding important hospital positions. The protest is published as Senate Document No. 931, 62nd Congress, 2nd Session, Aug. 10, 1912.]

*To the honorable the Members of the United States Senate and House of Representatives:*

The undersigned physicians respectfully but earnestly protest to your honorable bodies against the passage of any bill to reestablish beer selling in the United States Army.

A study of the Army statistics during the present non-beer period as compared with the previous beer-selling period shows:

First. That the average admission rate for alcoholism in the army has been lower during the non-beer period 1901-1910.

Second. That although the average admission rate for venereal disease has been higher during the non-beer period than in the preceding beer-selling period, the greatest increase took place in the beer period immediately after the Spanish War. The increase between the first and the last year of that period was 106 per cent. The increase in the non-beer period was 19 per cent. at the highest point reached by the venereal rate which was seven years ago (1905).

In other words, beer, which is now advocated as a preventive of venereal diseases, failed in the beer-selling period to prevent an increase nearly six times as great as the increase during the non-beer period.

Third. It is not only in the state of drunkenness that men step into danger of incurring venereal diseases, but in the state of exhilaration and weakened self-control, which follows the use of comparatively small amounts of alcoholic liquors. Modern scientific investigation has shown clearly

that one of the earliest effects of the use of alcoholic liquors is impaired self-control. This impairment of self-control not only follows the use of the stronger alcoholic liquors, but may also follow the use of beer.

Fourth. Army tests, conducted by generals and Army medical officers, have repeatedly shown the disadvantage not only of the spirits drinker, but of even the beer drinker, in health, endurance, morale, and marksmanship—the qualities which are especially necessary for the efficiency of the soldier.

In view of the foregoing facts we respectfully submit that science and experience indicate that the sale of beer in the Army is not only not required to diminish venereal diseases, but that its reinstatement would conflict with the best interests of the soldier himself, physically and morally, both in the Army and when he returns to civil life, and that it would be in direct opposition to the highest efficiency of the Army as a means of national defense.

We therefore respectfully urge you not to pass any bill for the reestablishment of beer-selling in the Army.

Among the signers were:

Francis G. Benedict, Ph. D., director Carnegie Institute of Nutrition, Boston.

William F. Boos, M. D., biological chemist and pharmacologist, Massachusetts General Hospital, Boston, Mass.

Richard C. Cabot, M. D., assistant professor of clinical medicine, Harvard Medical School, Boston, Mass.

T. Wood Hastings, M. D., professor of clinical pathology, Cornell University Medical College, 477 First Avenue, New York



Winfield Scott Hall, Ph. D., M. D., professor of physiology, dean Northwestern Medical School, Northwestern University, Chicago.

Howard A. Kelly, M. D., professor of gynecological surgery, Johns Hopkins University, 1418 Eutaw Place, Baltimore, Md.

Jacques Loeb, M. D., Ph. D., Sc. D., member Rockefeller Institute for Medical Research, Sixty-sixth Street and Avenue A., New York City.

John A. Lichty, M. D., professor of Medicine, University of Pittsburgh, 4634 Fifth Avenue, Pittsburgh.

Lawrence Litchfield, A. B., M. D., member of executive committee Pennsylvania Society Prevention of Social Diseases, member committee on organization of Fifteenth International Congress on Hygiene and Demography, Pittsburgh.

Emanuel Libman, M. D., professor of clinical medicine, Columbia University, 180 East Sixty-fourth Street, New York City.

E. E. Montgomery, M. D., professor of gynecology, Jefferson Medical College, 1426 Spruce Street, Philadelphia, Pa.

Joseph McFarland, M. D., professor of pathology, Medico-Chirurgical College, Philadelphia, Pa.

Mathew D. Mann, A. M., M. D., dean medical department University of Buffalo, 37 Allen Street, Buffalo, N. Y.

Paul G. Woolley, M. D., dean College of Medicine, University of Cincinnati, Cincinnati, Ohio.

Robert N. Willson, M. D., physician to Philadelphia General Hospital; pathologist to Presbyterian Hospital, 1708 Locust Street, Philadelphia.

Roy K. Flannagan, M. D., director of inspections, Virginia Health Department, 1110 Capital Street, Richmond, Va.

### A German Army Total Abstinence Society

A TOTAL Abstinence Society has recently been organized in the German army with full and free cooperation of army officers high and low. The idea started among the younger officers of the garrison at Mulhausen. These officers and soldiers of the post became converted to total abstinence through the anti-alcohol society of the place and soon felt a desire to found a purely military abstinence society similar to the one already existing in the German navy.

A number of circumstances, but particularly the Kaiser's speech to the naval cadets at Murwick, lent encouragement to their

wish. The higher officers were quite ready to give assistance and a naval officer helped draft the constitution which was promptly approved by the proper authority. On the day of organization a parade notice was posted informing officers and privates of the new organization, which was called "The Army Abstinence Society of Mulhausen."

Thus the German army and navy are giving official encouragement to a movement similar to that which is credited with having revolutionized the morals of the British army and navy. Twenty-five per cent. of the soldiers in the British army are abstainers and it is conservatively estimated that there are 25,000 abstainers in the navy.

At the London Congress Against Alcoholism, where demonstrations were made of the value of temperance societies in the British civil and military service, Sir George White gave as the principal reasons for the development of temperance sentiment in the army: The cordial moral support and liberal financial aid of the British Government and of the officers high in command, and the fact that the men understood that it was a distinct element in their favor in promotion and in details to desirable service if they were abstainers.—*Translated for the SCIENTIFIC TEMPERANCE JOURNAL.*

### Valuable Prize Offered

UNDER the auspices of The American Society for the Study of Alcohol and Other Narcotics, Dr. L. D. Mason, of Brooklyn, N. Y., Vice-President of the Society, offers a prize of \$150 for the best essay on the following topics:

"The Biological and Physiological Relations of Alcohol to Life."

The essay must be the result of original research which shall confirm or disprove the present theories of the inherited effects of alcoholic degeneration and indicate how far the defects of the parents are transmitted to the children.

Essays may be illustrated by drawings or photographs and must be type-written and sent to the office of the Secretary before July 1st, 1913.

This offer is open to students in all countries. Each essay should be accompanied by a motto for identification, and a sealed envelope containing the same with the author's name and address. Dr. W. S. Hall, professor of Physiology in the Northwestern University, Chicago, Ill., is chairman of the committee of award.

All inquiries should be addressed to Dr. T. D. Crothers, Secretary, Hartford, Ct.



# Class=Room Helps

Conducted by Edith M. Wills

## Beer and Business\*

*A dialogue for two boys.*

SCENE—Business Man's office. Mr. Business Man discovered sitting in office chair examining business papers.  
CHARACTERS—Representative of Scientific Management Bureau and Mr. Big Business Man.

*Enter Representative*

Representative. "Good morning, Mr. Big Business Man, I just dropped in to talk over the question of increasing your profits."

Mr. Big Business Man. "Glad to see you, have a chair." [*Sets a chair for him.*]

Rep. "To begin with, may I ask how beer drinking among your employes effects your business?"

Mr. B. M. "Oh not at all, I suppose. I have never given the matter any thought. Our employes are not hard drinkers. We do not keep that kind. If a man wants a harmless drink like beer with his meals or occasionally at other times, that is his own affair. We do not meddle with the private life of our employes."

Rep. "How many bookkeepers have you?"

Mr. B. M. "We keep one hundred bookkeepers and stenographers quite busy in our office"

Rep. "Do they always arrive on time?"

Mr. B. M. "As a general thing they do; if any do not, the lost time is deducted from their wages."

Rep. "How can you keep an account of tardiness accurately with so many employed?"

Mr. B. M. "Oh, we have a time registering clock, and all who come in after hours are required to turn the wheel and press the button in such a way as to indicate the minute of their arrival."

Rep. "Why are you so exacting with your employes?"

Mr. B. M. "We are compelled to be exacting, as you call it. We pay them for so many hours a day and we are entitled to what we pay for. If it were only one man who was occasionally a few minutes late, it would not amount to much; but when we have one hundred, a dozen of them averaging five minutes tardiness each day will cause us the loss of an hour's time and in a year, of fifteen days' time."

Rep. "Yes, that is true. [*Figures on a sheet of paper as he talks.*] Let's see what per cent. it would be. One hundred persons working eight hours per day would

make eight hundred hours' work. One hour is one-eighth hundredth of this, which would be one-eighth of one per cent. What is your weekly payroll, please?"

Mr. B. M. "Our office pay roll averages \$2,000 a week."

Rep. "All right. Let me do a little figuring. [*Figures rapidly.*] Now I have it. Two dollars and fifty cents a week saved by the time registering clock. Certainly that is worth while. You use this system because you are entitled to all the time of your employes. How about their efficiency? Are you not also entitled to the best service they can render?"

Mr. B. M. "Certainly we are and we do not employ any but those who are efficient. If any man frequents saloons and shows up in bad shape for business he is not retained."

Rep. "But you do not object to their using beer in their homes or an occasional glass at the saloon, if the effect cannot be detected in their behavior?"

Mr. B. M. "No."

Rep. "Have you kept up with the investigations of the great scientists as to the effects of small quantities of alcoholic liquors on the working efficiency of those using them?"

Mr. B. M. "Well, no, I have read nothing along that line."

Rep. "You should investigate this matter. Some very interesting facts have been developed during the last few years as the result of thousands of experiments conducted by impartial scientists who employ methods of great exactness so as to reach conclusions that shall be beyond question."

Mr. B. M. "Do these experiments have any bearing on my business?"

Rep. "Yes, indeed. For instance, in a number of experiments in typewriting, taking dictation, addition and other exercises pertaining to office work it was found that the taking of one glass of light wine or beer diminished the normal mental efficiency on the average about 7 per cent. causing a decrease of mental activity, greater liability to error in writing, spelling and punctuation. The mental disturbance per-

\*The effects of Alcohol on the Individual, the Community and the Race by Dr. Henry Smith Williams  
Alcohol and the Human Body, Sir Victor Horsley and Dr. Mary Sturge; Die Alkoholfrage by Dr. Von Gruber



sisted twelve, twenty-four and in some cases where larger doses were taken, thirty-six hours. When the quantity of drink was increased to as much as five pints of beer daily and continued twelve days, there was a cumulative effect, the power to add being impaired 40 per cent. These experiments were conducted by Professors Bergman and Kraepelin, and Doctors Mayer and Kurtz, renowned European scientists of the highest reliability."

Mr. B. M. "Indeed. I must look into that. If only ten per cent. of our office force are using beer, and doubtless one-fourth of them are, and their working capacity is reduced only seven per cent. by their indulgence, that would amount to something. Let me see. [*Figures rapidly.*] Ten per cent. of 7 per cent. is .07 per cent. and .07 per cent. of \$2,000 is \$14.00. Fourteen dollars at the lowest estimate, lost by beer, as against \$2.50 saved by the time registering clock. The matter is worth investigating. Could you direct me to some authorities so that I can read up upon the subject?"

Rep. "Certainly, with pleasure. I will refer you to one American, one English and one German work, among the many that could be mentioned. [*Writes list and hands to him.\**]

Mr. B. M. "Thank you. How about muscular efficiency? The one hundred clerks are only a part of our force, you know. We employ a thousand men in our manufacturing plant and though we have no heavy drinkers, I shouldn't wonder if three-fourths of them use beer as a daily ration."

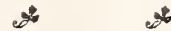
Rep. "Muscular efficiency, after the first effects pass, that is, in less than one hour, and endurance are markedly lessened. In carefully conducted experiments by Prof. Schnyder of Bern, the average loss of muscular strength following the use of half a pint of wine, equivalent to about two glasses of beer was fully 8 per cent. Prof. Kraepelin's experiments showed that the special senses of sight, hearing, taste and feeling also suffered severely, the impairment of the hearing in some cases reaching 50 per cent. This remember was the effect of only one drink. Regular moderate drinkers who take their beer three times a day, certainly suffer a considerable physical impairment. Besides, even workmen must use their mental faculties and these are stupefied."

Mr. B. M. "Your statements seem too startling to be true, but I will investigate this and if I find this data reliable, new

rules ought to govern our business. If business men awoken to the situation, all employers will unite to remove this handicap of industry. The railroads have already taken a stand against it. I can see how a drunken engineer might cause a wreck or a drunken officer lose a battle, but I never before considered that my own business was being injured."

Rep. "Well, experience corroborates the scientists. Prof. Helenius relates a case where the manager of the copper mines of Knockmahom told him that more than 800 of the 1,000 persons daily employed in those works, had taken the total abstinence pledge and that, after doing so, their productive efficiency increased by nearly \$25,000 annually. They did more and better work and with less fatigue to themselves"

"Good day, sir, and success with you."  
[Retires.]



### The Donkey's Story

I AM ONLY an ordinary, stupid donkey, but I should like to say a word or two. Perhaps there may be, here and there, a kind person who will listen to me; and if he could render me help I should be doubly grateful to him.

"First, I must tell you that I live in a cosy little village in the neighborhood of a city. Ah, if I only could always stay in the village, what a happy donkey I should be, and have no cause to complain. I live there a glorious life, in summer out in the meadow, and in the winter in the stable, and my master and his wife are very good to me.

"But once a week, every Monday, I have to go to the city, and that is my unhappy day. My master harnesses me to a cart, which he loads with butter and eggs. Then he gets into the cart, and I have to draw it for about an hour and a half. I do not complain of this; certainly not, it is indeed a pleasant change, and I do it willingly. It is not the journey to the city that is so bad, but the return home; and there lies my week's trouble. You might well ask whether I would not rather live in the city. Oh, no; I have told you that I am happy in the village; and every Monday I rejoice when I get back home.

"But on the way! How it comes about I can hardly tell. In the morning when we start my master is very kind to me. But along the road and in the city there are certain houses where my master has something



to do every week. Frequently I have to stop half an hour or more before the door waiting. I believe that in some of these houses someone must do my master harm, for the more he visits them the more disagreeable he becomes. It must make a man half ill to go in there, for every time the door opens there comes out such a horrible smell that I can not bear it and am obliged to turn my nose to one side.

"I have already said I do not know how it comes about, but this I know, that it is these houses that spoil my master, for on the way home he raves and curses, and all the way I get blows that I do not deserve, for I trot home faster than I go in the morning towards the city.

"Last Monday, half way home, my master went into one of these houses, and I had to wait and wait and wait. This lasted a good half hour, till I was fearfully weary. I longed for home and my warm stable, for the November wind blew icy cold round the corner. I thought to myself, I will call my master so I cried 'Hee-Haw' as loud and long as I could. This, however, only did me harm, for my master came out and swore, saying to me. Thou stupid, filthy beast. But I was not that. It was he himself; and then he struck me on the nose with his fist, and kicked me in the stomach.

"Then he took a bucketful of water, saying 'drink!' But I had drunk only half an hour before, so I turned, aside, for I only drink when I am thirsty. Of course I don't know how men do. 'Wilt thou not drink?' cried my master, and threw the water over my legs. 'Fellow,' cried a passer-by, 'Thou art the bigger donkey of the two.' I was very much annoyed with the man for I took it as an insult.

"Yesterday I was talking to a cousin of mine, a donkey belonging to a neighbor, and complained to him of my condition. He appeared, however, to understand more about it. He told me, for instance, that drinks containing a harmful substance, called alcohol were sold in these places. Men call such places saloons and his master never entered them and never scolded or beat him. He said that was because he wore a blue badge. [Badge of total abstinence.] Formerly he used to go there; but since he has worn the badge he has been kinder to my cousin. I cannot quite understand it; but if it is so, I wish my master would get a blue badge and wear it. Perhaps some one may be kind enough to persuade him to do so."—*Translated for the* INTERNATIONAL GOOD TEMPLAR.

## LESSON SUGGESTIONS

THE preceding story may serve to introduce a lesson showing the difference between wholesome grapes and the injurious fermented wines and is especially well adapted to show younger pupils how and why alcoholic drinks always tend to make those who use them unkind or even cruel. While the scene is supposed to be laid in Holland, the story might be laid in almost any European country, linked up with the geography lesson and throw a sidelight on the customs and business of the people. Thus might be brought to mind the fact that both soil and climate of the middle and southern European countries are particularly favorable to grape culture and accordingly much of the land is devoted to vineyards. Wine is almost as common there as milk is here and as few of the people have as yet been taught the harmfulness of the alcohol it contains (it is only a few years since careful experiments proved it) they think wines as wholesome as the grapes. Now some of the wisest and the most patriotic persons in each of those countries are doing all possible through lectures, books and papers, and through lessons in school (in Germany and some other countries) to teach the people about alcoholic drink, and thousands every year are putting on the badge of abstinence as the master of the donkey's cousin did.

(Here also the wise teacher has a fruitful opportunity for teaching the American children to respect and, therefore, to treat kindly any children of alien birth.)

The story may be read or told graphically without remark or it may be reproduced orally or in writing.

Or, it may introduce a series of two or three lessons. In the first may be discussed the good uses of grapes with suggestions as to sterilizing and bottling the juice to keep it wholesome—free from alcohol (equally applicable to fresh apple juice), and the explanation of how otherwise the yeast cells which are on the skin of the fruit and are washed off into the juice remain and by changing the sugar of the juices into alcohol and carbonic acid gas, completely alter the nature of the fruit juice. The alcohol in wine, beer and cider is the same as that in whisky or rum.

The second lesson may comprise simple explanations showing that alcohol is a substance that while harmful to all parts of the body, is especially injurious to the brain. By stupefying and irritating the brain it is likely to make the person taking it irritable and cross. Often he does not realize clearly what is happening about him; he misunderstands what is said and many times he whips his donkey, horses or dog and sometimes, alas, may hurt his children or his wife or others without meaning to or knowing until afterwards what he has done. Often it happens that the man who is kindest and most thoughtful when himself is the most cruel when drink has injured his reason and his sense of right. Nearly all the prisoners in the prisons are drinkers and judges tell us that about half of all the crimes committed are due to alcohol. Many drinkers come to realize that alcohol is making them cruel and wicked but they cannot stop drinking it because alcohol is a narcotic which like all other narcotics has the power when taken for some time to make people crave it so much they can hardly stop even though they know how it is harming them.



# Alcohol and Accidents in Germany

## Iron and Steel Works—Brewing and Malting Works

ROCHLINGSCHE STEEL AND IRON WORKS. VOLKLINGEN, 1908.

Abstinent Employees' Accident Rate 8 per 1000

All Employees' Accident Rate 12 per 1000

### ALL GERMANY, AVERAGE OF ACCIDENTS AMONG INSURED FULL TIME WORKERS.

Iron and Steel Works, Accident Rate 11.62 per 1000

Brewing and Malting Works, Accident Rate 13.05 per 1000

The accident rate of abstainers was 33 1/3 per cent less than the average accident rate of all employees (including abstainers) in the same works.

The brewing and malting occupations were exceeded by only five occupation groups in accident rates although not specially hazardous.

“The high accident rate due to alcoholism is recognized by the brewers who are seriously setting to work to reduce the consumption of beer, especially the free allowance.”

Die Alkohollage I-VI, 1909  
Alcoholism in Industry, 1911

Official Statistics, Imperial Office, 1907  
(U. S. Bureau of Labor, Bulletin 92, Vol. 22, 1911)



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23 Trull Street, Boston, Mass.

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# SCIENTIFIC TEMPERANCE JOURNAL

— *Continuing the* —  
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## THE HIGHER BATTLEFIELD

WHEN we make peace not war the type and glory of existence then shall shine forth the higher soldiership of the higher battles. The first military spirit and its works shall seem to be but crude struggles after and rehearsals for that higher fight, the fight after the eternal facts and their obedience, the fight against the perpetual intrusive lie, which is the richer glory of the riper man. The facts of government, the facts of commerce, the facts of society, the facts of history, the facts of man, the facts of God, in these, in the perception of their glory, in the obedience to their compulsion, shall be the possibility and promise of the soldier statesman, the soldier scientist, the soldier philanthropist, the soldier priest, the soldier man. The enthusiasm of the truth-seeker may be as glowing and unselfish as the enthusiasm which scales the height and captures the citadel with the resistless sword. It is not that the power of fight has perished; it is that the battle has gone up on to higher ground, and into higher light.

—*Phillips Brooks.*

*Published at—*  
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NOVEMBER, 1912



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# Scientific Temperance Journal

Vol. XXII

BOSTON, NOVEMBER, 1912

No. 3

**T**HE situation that has not its Duty, its Ideal, was never yet occupied by man. Yes, here in this poor, miserable, hampered, despicable Actual wherein thou even now standest, here or nowhere, is thy Ideal; work it out therefrom; and working, believe, live, be free. The Ideal is in thyself, the impediment, too, is in thyself; thy condition is but the stuff thou art to shape that same Ideal out of; what matters whether such stuff be of this stuff or of that, so that the Form thou give it be heroic.—Carlyle.

## The Cost of Forty-Two Chronic Drinkers

BY DR. ERNEST SIGG

Volunteer Physician in the Munich Clinic for Nervous Diseases directed by Prof. E. Kraepelin.

How forty-two alcoholic men, largely still in the prime of life have already cost the public \$614 each for mental disorders, crime, sickness, accidents and pauperism and are expected to cost \$824 more each for future care, is explained in this remarkable study of cases. It gives a startling view of the avoidable burden of expense which the drink habit entails on the long-suffering public bending under "the high cost of living."

**A**S A BASIS for estimating the saving that might be effected by timely treatment of cases that have developed into chronic alcoholism, the following study was made of forty-two alcoholics admitted to the clinic for nervous diseases in Munich from January 1, 1911 to December 1st of that year.

### PATIENTS IN THE PRIME OF LIFE

Classified by age the cases ran as follows: Under 20 years of age, none; from 21 to 30, five; from 31 to 40, fourteen; from 41 to 50, fifteen; from 51 to 60, seven; and from 61 to 70, one.

Over two-thirds were, therefore, between thirty-one and fifty years of age.

It is to be supposed that these persons had been intemperate for a long time although the greater part of them had not been admitted to the clinic more than twice.

As to domestic relations, nineteen of the men were single, fifteen were married, three widowers, and five divorced.

### PHYSICAL CONDITION OF THE MEN

Seventeen of them were proved to have descended from alcoholics; five were illegitimate; two-thirds had been backward in school.

According to diagnosis the cases were:

Acute intoxication and alcoholism, twenty, delirium tremens seven, alcoholic insanity eight, alcoholic epilepsy seven.

With most of these cases, the proper time for institutional treatment with any prospect of success had long passed. It is probable that if they had been put under treatment several years before, a large part of them might have been made into useful cit-

izens. Instead of that, they began, some earlier, some later, a vicious circle which took them from the clinic to the insane asylum and from there around again to the clinic until they were finally definitely put in the hospital, and only by running away appear again after a little while in the clinic.

### FIFTEEN THOUSAND DOLLARS FOR MENTAL DISORDERS

If we reckon up the cost of the treatment of these forty-two alcoholics in the clinic, 3,585 marks, in the insane asylum, 22,430 marks, allowance from the sick benefit treasury, 20,728 marks, we have a total of 46,743 marks (\$11,685.75)

The numbers of days of treatment amounted to a year's maintenance of fifty-seven persons. According to the sick benefit allowance, the cost of placing and maintenance for a year is put at 7,000 marks per bed. Interest at four per cent. for fifty-seven beds would be 15,960 marks.

The total cost of these forty-two persons for treatment for mental disturbance alone would thus amount to 62,703 marks (\$15,675.75)

### THE CRIME OF THIRTY-THREE COST FIVE THOUSAND DOLLARS

But this by no means includes the total expense. We know that the criminality of alcoholics is no small item. Looking up the criminal record of our patients we found a total of 485 commitments. All except nine men had been condemned; eighteen less than ten times, four over thirty times amounting in separate commitments from one day in prison to five years in the work house.



All, without exception, were condemned at the cost of the courts and of penal maintenance. Because of their inability to pay, the State had to bear the burden of expenses of witnesses, of transportation, etc. to the extent at least of 10,000 marks.

Altogether the number of days of detention amount to 21,086, which at the rate of one mark a day (\$.25) would cost the state 21,086 marks (\$5,271.50).

This sum shows us how great the burden of criminality imposed by alcoholism.

We know in fact, that 45 per cent. of larceny, 85 per cent. of assaults, 63 per cent. of immoral acts occur in connection with alcohol and that 20 per cent. of all arrests have to do with drunkenness and that a very large percentage of recidivists are alcoholics.

#### ANOTHER FIVE THOUSAND FOR SICKNESS

In the last ten years, the total number of sick days of these persons was 28,598, one-sixth of which has fallen upon the hospitals. If we base our estimate on the Leipzig statistics, we may credit 50 per cent. of the sickness to alcohol. That makes half of the cost for hospital care amount to 2383 days which at 3 marks a day would be 7149 marks (\$1787.25).

The cost of medical attendance in the home at two marks a day amounts to an additional 4722 marks (\$1,180.50).

The total burden imposed by our forty-two patients upon the sick benefit treasury and the poor funds for sickness thus amounts to 11,871 marks (\$2,967.75).

To this is to be added the sick benefits paid to these alcoholics by the Bavarian Insurance Society, 3,500 marks, and temporary aid obtained from the poor funds, 5,000 marks.

Summing up then, we have for forty-two alcoholics:

|                               |            |       |
|-------------------------------|------------|-------|
| For care for mental disorders | 62,703     | marks |
| “ criminality                 | 21,086     | “     |
| “ hospital treatment          | 7,149      | “     |
| “ home “                      | 4,722      | “     |
| Insurance benefits            | 3,500      | “     |
| Temporary aid from poor fund  | 5,000      | “     |
| Total                         | 104,160    | “     |
|                               | (\$26,040) |       |

#### A WORSE BURDEN FOR THE FUTURE

The question now arises whether this burden is to be continued, or whether the demands made by these forty-two persons in future will be smaller, for at the time the records cease, Dec. 1, 1911, they had not run out their course. Unless observation

and daily experience are entirely at fault, society will continue to be burdened by these persons for some time to come. With most of them it will be still worse in the future than it has been in the past.

In order to estimate this future we have to consider their life expectancy. Two have died since the records were completed, one each of tuberculosis and nephritis. The average age of the remaining men is forty years, and they show at present no other physical defects than those of chronic alcoholism. We are safe in allowing an average of ten years to each. At the rate they have cost in the past they will yet cost 120,000 marks (\$30,000) of which one-fourth will fall upon the poor funds of Munich, the remainder upon the local sick clubs.

If those not confined make the same demands upon the judicial system, the poor funds, the insurance treasuries and the hospitals in the next ten years that they have in the past we shall have to add 20,000 marks to the above 120,000 making 140,000 and this to the past cost of 104,160 marks, a grand total of 244,160 marks (\$61,040).

The average per individual is 5813 marks (\$1453).

This vast sum takes no account of the misery and suffering and brutal treatment which falls upon those most closely related to these drinkers nor of the moral injury and pecuniary struggle of their families.—*Translated for THE SCIENTIFIC TEMPERANCE JOURNAL.*



#### Federation Exhibit Gets Award

THE Scientific Temperance Federation has been awarded a diploma of merit for its anti-alcohol exhibit at the International Hygiene Congress at Washington in September. In awarding diplomas, the jury took into consideration the originality of treatment of the subject material, the method of presentation and the care shown in the preparation of the exhibits.

The Federation's exhibit in charge of Miss Wills is very soon to go to important cities on the Atlantic coast.



A cynical spirit can not do much for men or with men. He who would greatly serve men, or greatly lead them in a great cause must believe in them.—*Henry Churchill King.*



To this event the ages ran—Make way for brotherhood; make way for man.

## Insanity and Mental Deficiency

THE problem of the mentally deranged, always a serious one individually, has of recent years acquired especially sinister significance because of the indubitable increase in insanity, and still more because the problem is now recognized as one no longer confined to the afflicted individuals, but as affecting the soundness of the race. When there is linked with insanity the sister weakness—mental deficiency—society finds itself confronted with a condition which ought to make those endowed with a reasonable amount of brain capacity think and act.

Consideration by physicians of the prevalence, causation, and prevention of mental abnormality and deficiency has recently very properly been given considerable space by several of the leading American medical journals.

### PREVALENCE OF MENTAL ABNORMALITY

One feeble-minded person to every 500 of the population in Pennsylvania is the estimate given by Dr. Joseph Neff, Director of the Department of Health of Philadelphia.

New York State is debited by Dr. L. A. Merriam (*New York Medical Journal*, August 24, 1912) with one insane person to every 273 of the population. "In the United States we now have one insane, defective, or feeble-minded person to every 150 of the population."

### THE DANGER TO SOCIETY

"Once feeble-minded, always feeble-minded," is an accepted axiom in regard to this class. They can never be "cured," that is, made into persons of normal intelligence. But they may be trained in occupations that will make them in a measure self-supporting. The safety of society, however, demands that they be kept in special institutions.

"Feeble-minded women in general," says Dr. Theodore Diller of Pittsburg (*Illinois Medical Journal*, September 1912) are more prolific than normal women, and practically all of them become mothers soon after the age of puberty."

Dr. H. M. Cary, Superintendent of the Eastern Pennsylvania State Institution for Feeble-minded and Epileptics, believes the offspring of any feeble-minded person, whether mated with a normal individual or not, is mentally below par. "In a number of cases they may be able to pass muster and escape being classed as feeble-minded, but nevertheless, on close scientific examin-

ation, they show various marks of mental non-development."

All investigators are agreed, says Dr. Cary, that the offspring of a feeble-minded father and a feeble-minded mother must necessarily in all cases be feeble-minded.

With only one-ninth of our feeble-minded population (17,000 out of 150,000—John Koren, 1904, Special Agent U. S. Census Bureau) residing in institutions for the care of this class of persons, and with 133,000 at large, we are permitting the conditions favorable to the continued and rapid increase of these unfortunate social dependents.

Another unlooked-for item in the cost and risk of allowing the feeble-minded to be at large is given by Dr. Cary. In 1910, he states, the insurance commission of New York paid \$1,500,000 for fires caused by feeble-minded. "A quarter of that," Dr. Cary adds, "spent in prevention and treatment would have accomplished wonders."

### MEASURES FOR PREVENTION

Any study of prevention is necessarily linked with the causes of the conditions to be prevented.

"When we come to inquire into the causes of feeble-mindedness," says Dr. John Punton, of Kansas City, in the same number of the *Illinois Medical Journal*, "alcoholic heredity, syphilitic heredity, and consanguineous marriages are found to be the chief etiological factors." Other factors mentioned by Dr. Punton are: Acute and chronic diseases in the parents, fright, shock, injuries, parental neglect, faulty education, poverty, malnutrition, social dissipation, and lack of proper control.

### ALCOHOL AS A FACTOR IN CAUSATION

In an article on "The Prevention of the Causes of Insanity" (*New York Medical Record*, August 17) Dr. Amos J. Givens of Stamford, Conn., says it is well known that "the use of alcoholic beverages accounts, chiefly through heredity, for at least one-fourth of all cases of insanity, but is it not possible that we are still underestimating the part it plays in producing this class of cases?"

"So long as alcohol in all its forms, pure and impure, highly or moderately intoxicating, is freely available, and the great masses of the public are left in ignorance of its inescapable, most subtle influence upon the organs of the body, the tissues of the nervous system, and of the birthmark of a vitiated vitality or an enfeebled mind which



will be branded upon offspring, just so long will the chief factor in the production of the insane and defective be uncontrollably active. This is a matter which must be hammered home into the brains as well as the souls of the American people, and by those who are conversant with modern pathological and psychological findings. And the government elected by the American people must afford them adequate protection from their ill-advised desire—as regards a certain proportion of them—to indulge the appetites of the body without restrictions.

"If alcohol is the chief cause of insanity, as exhibited through heredity, other factors scarcely less worthy of consideration enter into the problem. It has been well said that 'the more stable the brain organization, the more stress required to provoke mental dissolution, and vice versa.' Also that 'every man has his breaking point;' that 'breaking point,' however, may never be reached if a man has a good heredity; but as we look about us, we see on all sides individuals whose heredity is defective. Possibly we say it is not alcoholic, but can we say it is not syphilitic, epileptic, tuberculous, that it is not, above all else, neurotic?"

#### PREVENTION BY EDUCATION

"Ostrander says: 'Insanity is as preventable as tuberculosis. A million dollars annually expended for the scientific investigation of the causes and prevention of diseases would eventually relieve the state of a large part of the burden of caring for its dependents.'

"The cost of systematic education of the public old and young, in such preventive measures as can alone insure reduction of the number of these cases or even a halt in their constant increase will be large, but is never likely to approach the enormous amount of present expenditures in caring for the results of our past folly and failure to interpret the trend of events.

#### THE RACIAL FACTOR

"Better conditions, also as regards housing of our people, their working surroundings and especially their nutrition etc., must be assured. It is not, however, the native born, those most logically our people, who give rise to the problems most difficult of solution. It is the foreign born now pouring into the country in augmented numbers. In March, 1910, 103,000 immigrants landed at the port of New York alone; 32,314 of this number remaining in New York State. The last national census returns showed that 43.3 per cent. of the insane in that state

admitted in 1904 were foreign born. [This had increased to 46.2 percent. in 1910.—Ed.] In Connecticut the percentage was 30.2 of admissions of foreign born for 1904. The percentage of foreign born to total population of Continental United States for that year was but 19.5. Insanity of the foreign born increases much faster than their addition to the population warrants. We may attribute this to lack of adjustment to environment, to the fact that a large proportion of these immigrants are accustomed to an out-door life, and to an innutritious diet totally inadequate to the physical demands upon them in this country. Congregating to so large an extent in cities, meeting the unaccustomed stress of American environment and customs, ill-nourished and ill-housed, and often with inherent defects they succumb mentally, and crowd our institutions."

Among the conclusions of Dr. Gibben's study is this:

"The Irish and Germans constituted, in 1903, over 60 per cent. of the total insane population in hospitals. They are, incidentally, considerable consumers of alcoholic beverages." These two nationalities furnished 26.5 per cent. of the cases of alcoholic insanity admitted to the New York insane hospitals in 1910.

"There is urgent need for the adoption of more practical measures for the lessening of the production, sale, and consumption of alcoholic beverages."

#### KEEPING THE HOPPERS GOING

Another charge against alcohol as the preventable factor in insanity is made by Dr. A. M. Corwin in the discussion following the papers reported in the September *Illinois Medical Journal*:

"We are listening to profound explanations and hypotheses, studying names, and theories and results, all of which are good, and we are getting into the practical side for the solution of these questions through such men as Dr. Cary, but we are, after all, looking after the product temporarily, only, while the hoppers producing these dependents and defectives still go on producing them in increasing numbers and physicians as a whole take no steps to put themselves on record against the saloon in public life, which is chiefly responsible for their multiplicity. If we go through the records of our institutions we will find that not only syphilis, but alcoholism is responsible largely for these results. It is time to strike directly at these causes, and there will be less of these effects to handle."

## Abnormal Children and Alcoholism

BY DR. A. BIENFAIT

Secretary of the Medical Temperance Society of Belgium.

**B**ETWEEN well-endowed children and children devoid of all intelligence, idiots, there is a series of infinite gradations. The school puts the matter to the test. The child of feeble mind is unable there to keep up with the others.

Backwardness in school may be due to several causes, not only to mental defectiveness and slowness of comprehension but to external circumstances. There may be children of foreigners who are not able to keep up with their classes because they do not understand the language, or of parents going from place to place who do not understand the necessity for instruction.

Children who are backward in the medical sense are of two classes: Those of virtually normal intelligence but slow in development because of some infirmity or from some special state of their general constitution, and those of abnormal intellectual faculties. The infirmities of the first class may be some defect of the senses, of sight or hearing; there may be chronic dyspepsia, or adenoid growths. In rare cases the trouble may be with the thyroid gland.

All these children may have normal intellectual capacity but may be in such a condition that they are unable to develop their senses, to increase their association of ideas, to assimilate the thoughts of others, to form judgments. As a consequence, they fall so far behind the other children that they appear to be wholly incapable. When put into special schools where their special conditions receive attention they make rapid progress.

Finally, there are those properly called abnormal, in whom attention, the association of ideas, and judgment leave so much to be desired that it is very difficult to educate them, to make them comprehend the most simple truths.

An impaired faculty of comprehension is not the only weakness in these children. They are often listless, unstable, irritable, undisciplined, and, when young, epileptic.

## CAUSES OF BACKWARDNESS

Among the various causes of arrested mental development are: old age of parents or their diseases, (tuberculosis, syphilis), diseases in embryo, accidents at birth, diseases and accidents of childhood, chronic

poisoning of the parents, especially with lead and tobacco.

As we shall show further on, the action of alcohol as a cause is enormous, and, what is very important, it is avoidable. Hence, it is the duty of us all to strike it from the list.

Alcohol not only acts directly in some chemical way upon living matter, but this action is confirmed and increased by a series of circumstances such as the following:

Intoxication of parents leading in a certain number of cases to the contraction of syphilis which in turn causes alterations in the development of the foetus, and may be transmitted directly to the infant.

Alcoholism in the father predisposing to lead poisoning if his occupation is that of a painter, plumber or printer. The effect of the two poisons acting together is to double the hereditary influence.

Alcoholism predisposing to tuberculosis. Even light intoxication makes one careless about even the most simple precautions against taking cold [and exposure to unsanitary conditions—Ed.].

The effect of alcohol is especially marked upon those whose nervous systems have already become weakened by other causes; hence it increases hereditary taint.

These effects need no commentary. They emphasize the indirect dangers of alcoholism and the fate reserved for a nation which does not battle with all its might against this powerful cause of degeneracy.

## EVIDENCE OF HEREDITARY EFFECTS

In order to estimate the injurious effects of alcohol upon heredity, we have only to pass in review the medical literature on the subject.

Dr. Nicloux performed a number of experiments showing the passage of alcohol into the different organs of the body. Into all the glands and secretions of the reproductive organs alcohol passed soon after it was taken, and was found there in measurable amounts. Among the effects, there were changes in the irritability and nutrition of protoplasm.

One investigator (Lippich, quoted by Forel in *Mün. Med. Woch.* 1911, No. 49) has collected reports of ninety-seven cases of children conceived during the intoxication of the father. Only fourteen were normal. The eighty-three others suffered



some abnormality such as scrofula, tuberculosis, atrophy, retarded development.

Before the arrival of total atrophy, the glands pass through a series of alterations more or less progressive. In these stages of degeneracy, of intermediate alterations, the elements may be capable of reproduction, but they are already weakly and altered.

This evidence in the case of man himself permits us to affirm with the utmost certitude the existence of hereditary alcoholic taint, a source of degeneracy in the race.

#### PRENATAL INFLUENCES OF ALCOHOL

Dr. Nicloux proved with animals, and in clinical accouchement cases of Dr. Garnier that alcohol given to the mother passes over to the fœtus and is found in its blood in a percentage only a trifle smaller than in the blood of the mother. We are all aware of the great susceptibility to alcohol shown by all cells in the period of growth. It is not surprising, therefore, that these retarded children should have various disorders of the nervous system.

#### ALCOHOL IN THE MOTHER'S MILK

Nicloux also found that alcohol given to the nursing mother could be detected in her milk. The maximum quantity reappearing in the milk was found about three-quarters of an hour after it was taken, but traces could still be detected seven and eight hours afterward. This is very important because it shows the danger in the use of beer and wine by nursing women.

Thus alcohol attacks man at the moment of his conception, it follows him during fœtal life, he receives it in his mother's milk, and its action, disastrous from the first moment of his existence is enhanced during his whole life up to the moment when he transmits, in his turn, to his child his primitive taint doubled by the continued action of the poison.

In the breeding of cattle the most minute precautions are taken for the improvement of the race, but when it comes to man himself, not only is no thought taken, but he seems to expose himself with gaiety of heart to the worst possible results. At marriage, to speak of nothing else for the moment, the new husbands often celebrate the event by consuming all kinds of alcoholic liquors, thus by unbelievable recklessness exposing themselves to the creation of wretched and unhappy beings, abnormal, epileptic children.

There is one remedy for this situation, and only one. Instead of considering the use of beer, wine, and other liquors desir-

able, indispensable, even honorable, we should consider the use of alcohol in all its forms as the mark of an inferior civilization. Those who esteem it highly, even at the detriment of their health and the future of their families, abandoning themselves to vulgar pleasures, give evidence of small intelligence.

Humanity in a state of progress is repudiating from day to day the so-called advantages in the use of alcoholic liquors, and in all countries, even in our own, the number of the temperate and of abstainers is constantly increasing.—*Translated for THE SCIENTIFIC TEMPERANCE JOURNAL.*

#### An Official Investigation of the Alcohol Problem

THE Swedish Government has had under consideration for some time a bill providing for an appropriation of 20,000 kroner (\$5,400) for conducting scientific investigations on the subject of alcohol, and publishing the results. The measure is supported by a number of university professors and scientists. The subjects to be included are:

The relation of alcohol to degeneration (investigations partly on animals and partly on the families of drinkers compared with similarly situated sober families).

The indirect influence of alcohol in the origin of pathological changes in the body.

The influence of alcohol upon the resisting power of the body against infection.

Explanations of the so-called "tolerance" of alcohol [acquired ability to resist to a certain extent the action of the poison] in connection with a thorough study of its effects upon the body; the relation between habituation and the craving for alcohol to chronic alcohol poisoning and the so-called abstinence symptoms.

The relation between alcoholism and social problems such as poverty, bad housing, and the like.

Investigations of legal and economic conditions connected with the treatment of inebriates in institutions; also the best methods of treating such persons while they are in the institutions.

Exact scientific investigations of the results of prohibition laws in various countries.

The development of a practical method of producing denatured alcohols, a question of importance because of the increasing use of alcohol for industrial purposes.—*Translated for the SCIENTIFIC TEMPERANCE JOURNAL.*

## Practical Facts from Practical People

From addresses at the International Hygienic Congress

### EDUCATION'S HELP AGAINST DRINK

The dissemination of the most recent conclusions of medical science in regard to alcoholism—not only as affecting the normal individual, but in its relation to tuberculosis, venereal disease and insanity—in form to be understood by the people, and by means of all the instrumentalities for social education, will be sure to have widespread results.—*Robert A. Woods, South End Settlement, Boston, Mass.*

### MENTAL DEFECTIVENESS A NATIONAL MENACE

Ten per cent. of the people of the United States are inherently defective. This ten per cent. are unfitted to become parents of useful and valuable citizens and unless their matings are with improved strains, deterioration in family lines is sure to follow. These people are an economic and moral burden on the remaining ninety per cent. of the population and a constant danger to our national and social life.—*Bleeker Van Wageningen.*

### A GREATER SCOURGE THAN CANCER

White slavery is a worse scourge than cancer and all infectious diseases put together. In money it costs America a billion dollars a year. In shortened lives, ruined homes and blasted careers, the loss occasioned by this scourge simply cannot be estimated.

Not less than five hundred newly born infants die of social diseases in Baltimore every year as the result of their parents' transgressions. The same proportion exists in Washington; and all over the world conditions are the same.—*Dr. Howard A. Kelly, John Hopkins University.*

### SPECIAL TRAINING AND COLONIZATION OF THE FEEBLE-MINDED

The formation of special classes for the feeble-minded among school-children is the most important step taken in half a century. In New York, there have been placed in these classes nearly 3,000 deficient children and now in five hundred cities such classes exist.

But the effort is misdirected. Use these classes as splendid machinery already at hand for the purpose of a clearing house to segregate feeble-minded children and then proceed to colonize them.

If this colonization be carried out there will be gathered in by the drag net, which is collecting mentally deficient children who are indisputably below par, a great percentage of the potential drunkards, criminals and prostitutes of the future.—*Dr. Woods Hutchinson, New York.*

### CAN YOUR SEVEN-YEAR OLD DO THIS?

Here are some of the things your child should be able to do when he is seven years old:

He should be able to count to thirteen, touching an object representing each progressive number as he counts.

He should be able to repeat the days of the week.

He should be able to recognize the principal colors.

He should be able to tell time.

He should be able to pick out missing details in pictures.

He should be able to draw in the missing details.

If he can't do all these things, he is backward in development for which each act, according to psychologists, is an expression.

There are certain definite, simple and easily learned tests of mentality which any mother can apply to her children, and by means of which she can tell absolutely whether her children are making the proper progress in school and in all-around mental growth. These tests which are the unrestricted property of the world, are known as the Binet-Simon system, and were given by their inventor, the psychologist, Alfred Binet, freely to mankind.—*Mary R. Campbell, Chicago.*

### TELLING THE TRUTH IN MODESTY AND CANDOR

The common attitude of mystery, of secrecy, of aloofness concerning the birth of new life only intensifies in the minds of children the false notions which they receive from perverted playmates. Too long have parents neglected their duty in this matter.

A vexing matter is when and how to tell the children. When a child is old enough to ask a question he should have a truthful answer within the limits of his understanding. Do not wait until the first information is obtained from outside sources. First



impressions are deepest and most lasting. They persist throughout life. They attract similar impressions and repel those of contrary nature, for it is a psychological truth that we soon think in grooves. If the parent tells the child a falsehood or gives an evasive answer about these things, the child is apt to think that the perverted tales he hears from older children must be true, and that this is the reason that mother does not want to talk about the matter. There is thus created a gulf between the parent and child that it is hard to bridge over later. Do not wait for the child to seek information. Teach the facts of reproduction when teaching other facts about plants and animals. Then it will come naturally, and not be a question of peculiar interest.—*Dr. Elnora C. Folkmar, Director of Educational Department of the Women's Clinic, Washington.*

#### ALCOHOL AND TUBERCULOSIS

Figures taken from British statistics showed that per 100,000 the comparative death rate from tuberculosis of male users and non-users of alcohol was as follows:

| AGE   | DRINKERS | ABSTAINERS |
|-------|----------|------------|
| 25-35 | 465      | 214        |
| 35-45 | 579      | 245        |
| 45-55 | 403      | 233        |
| 55-65 | 242      | 201        |

—*Dr. Jacques Bertillon, Chief of Bureau of Municipal Statistics, Paris.*

### A Wise and Profitable Policy

BY J. A. DENISON

President Maryland Lumber Company, Denmar, W. Va.

**I** HAVE been engaged for about twenty-five years in the lumber business in one capacity and another and for fifteen years have had charge of operations of varying dimensions.

Our present operation employs on the average 180 men, principally Americans but we have on the average about fifteen Italian laborers.

For several years it has been my policy not to retain in the employment of the company any persons who are discovered to be even moderate drinkers.

I believe it is conceded that lumbermen as a whole are about as rough a class of labor as exists today, especially the woodsmen, but we experience but little trouble with the liquor habit on our works for our stand in this connection has become generally known in the community and the old habits pass around us.

For this reason we secure the best class of labor that is to be had, men who are regular at their work and always in condition to do the work in hand. There is no question whatever but that the use of alcoholic liquors in any quantity reduces the efficiency of labor and makes it unsafe for fellow employes to be in proximity to those addicted to the habit, and this alone should be sufficient reason for refusing to employ persons known to be drinkers or users of drugs in any form.

Another theory that has always held an important position in this question, is the one that it is impossible to work foreign labor without allowing the men the use of liquors. We have had in our employ here for two years from ten to twenty-five Italians and have never known of their bringing any liquor of any sort, not even beer, on the works; neither have they been away from the works on sprees, for we have no open saloons in this or adjoining counties; consequently, it is very evident to the mind of the writer that this is an unfounded theory. A number of our neighbors in the lumber business have caught the cue and are taking the same stand on this question and they experience no trouble when they sit firmly on the matter.

### The Milan Congress

The XIVth International Congress Against Alcoholism, for which the Italian Government is issuing official invitations to all of the governments of the world to appoint accredited delegates to attend, will be held at Milan Sept. 22-28, 1913.

Dr. Ferrari Francesco of Milan, the honorary resident Secretary of the Congress, is making very satisfactory advance arrangements, in consultation with the committees in Germany, Switzerland and England. The Archbishop has promised his powerful co-operation in every way in order to make the Congress as complete a success as the previous ones.

The preliminary program of the Anti-Alcohol Congress embraces a number of attractive correlated features. They include Pathology, Moral Decadence, Medication, Economics, Capitalization, Non-alcoholic Products, Industrialism, Substitutes for Saloons, Housing, Baths, Restaurants, Probation Systems, Asylums, Limitations of Sale, Education, and International Solidarity against Alcoholism.

# Class-Room Helps

## Temperance Lesson Helps

BY MRS. FLORENCE DEAN WARE.

"OH, DEAR, it is Temperance Sunday. I never know what to do with that lesson." Have you ever heard it? I always want to ask the speaker what she knows about the subject anyhow, and how she dares to try to teach a subject she knows nothing about. If she only realized temperance as a vital topic, directly touching the everyday life of her pupils! The boy who said he really would go to Sunday School sometimes if they would talk about anything except old kings dead hundreds of years ago, may here be treated to a live present day issue.

All our lesson helps give fine material adapted to the age of pupils from simple stories for the children to a discussion of the topic as it relates to affairs of the day, for older ones. Newspapers, magazines, religious journals, are full of facts, stories, pictures, which we may file in that envelope labeled "Temperance" which every teacher should keep. In these days of temperance warfare and temperance ammunition, there is no excuse for a poorly taught temperance lesson. Watch even liquor advertisements for help.

Public school teachers can help you. What is the state law for teaching, not only physiology but temperance? How is it obeyed in your city or town? Visit the schools in which your Sunday School pupils are, to learn what they are there taught. Let that be a basis of knowledge for your teaching. There are many books which your teacher friends will lend you, or which you can find at the public library, if you can not purchase for yourself.

A list of books is given by Marion Thomas in the appendix of part four of the Second Year Primary Graded Course, Teachers' Handbook.

A study of food and the harm of wrong food may be shown in a story like the one of "How the Grapes Did Harm," from "THE SCIENTIFIC TEMPERANCE JOURNAL" March 1911.

Books having material for the general program of the primary and junior rooms will contain many suggestions for temper-

ance in those programs. One of these verses which is in the nature of a simple pledge for primaries, is

"God gave to me this good body,  
To grow both strong and tall;  
Tobacco helps to spoil it,  
And so does alcohol.  
Into my mouth they shall not go—  
When tempted I will answer NO."

"Where there's drink, there's danger" will be a good bit of verse for those juniors who are learning some of the "red lantern" stories of warning. Juniors will love, too, stories of great men who never touch liquor—Bryan who went around the world without it, Peary who says he never could have reached the Pole had he or his men touched a drop, President Eliot and his decision that only abstinence is safe.

Some Temperance Sunday let ten men from the Baraca Class tell from the platform what ten great men think of liquor.

The temperance map will give a broad view of things—a United States map, large and convenient, with banners on it, one for each state mounted on long pins. White banners for the states that are dry, black for those wide open or more than half wet, and gray for the local option ones.

Try a mystery box some Sunday—the ribbons and their lessons; puzzle verses to fill out blanks; perhaps a temperance paper for each one—enough to keep them busy, and to impress in many ways the same truth. Pictures may be shown to teach primary children the same truth as the story of the grapes referred to; let one card have pasted on it pictures of grapes, apples, wheat, corn, etc.—God's gifts. The other, some things man makes of these—whisky, beer, cider, wine. Contrast the two.

Have you used a series of cards showing where the wheat goes, in one series, through the gin mill, the saloon, to the home—and what a home—with pictures of the drunkard, his family and all the misery. Then another way we may take our wheat—the flour mill,—store, loaf of bread, and a fine house, with pictures of the man who lives there, his wife and family, and all the joys



of that home. It all depends on whether we take our wheat through the saloon or through the flour mill, you see! Pictures for such a series may be found in many places—fashion pages, ads of autos, plans for houses, everywhere!

Ask your boys to write some Sunday why they do or do not smoke cigarettes. An Italian boy of fifteen, who supported himself and his mother, wrote in answer to such a request, "I asked the boys who smoked about it, and they said, 'Don't you do it, for it costs much money, and it's so hard to stop when you begin!' I know you can't

work so well if you smoke, so you can't save so much money. You ought to earn money and save it for when you are old."

Don't forget the girls in this teaching. Do you know any one of them who can not deny herself that open box of chocolates on the table, even though she knows, she is making herself sick? Does she not need lessons of self-control and self-denial?

"Mouse trap—man trap" they may think as they pass the saloon—and there are other traps ready for girls besides!

Teach them, too, to be strong to resist temptation, and to help others not to yield.



## Cigarettes a Cause of Crime

BY ABRAHAM BOWERS

Immigration Secretary of the Young Men's Christian Association, Chicago, Ill.

SOME years ago I was a teacher for the boys awaiting trial in the Cook County Jail in Chicago. Prior to that time, I had not seen much of the evil effects of any of the narcotics. Almost immediately after beginning my work there, the insatiable grip of the cigarette was brought very forcibly to my attention. While taking training under my predecessor, I noticed that he was continually suppressing the use of the "nail," and when it came my turn to take charge I had much of the same difficulty. Although the sessions were only two hours in length, and although the boys could smoke as freely as desired in their cells, it was nearly impossible to keep them from smoking in the school room. When the school was in session they would light cigarettes and take a puff or two while my back was turned. Often during intermission a few boys would form a small circle, one would make and light a cigarette and then quickly pass it around to the others, and attempt to do so without the teacher seeing it. Some would carry the lighted cigarettes in their pockets and, as they moved around the room, on the pretext of spitting out of the window, would take a couple of draws. After a cigarette had been apparently used down to the last and thrown away and trampled under foot, some habit-ridden youth would grab up the "snipe" and give it a draw, though it was dirty and wet from the lips of another boy.

If a boy newly incarcerated was known to have a few pennies and he would not "divide up," the crowd would surround him,

take them away and pass them to the tier below for tobacco and wrappers. If a suit of old clothing was sent in to a destitute boy, he had to be watched to prevent his trading it to a man from another tier for a supply of tobacco for himself and friends.

Sometimes a boy would fall asleep on his bunk early in the evening without the cigarette materials for use before morning. He probably would be awakened about 2 or 3 o'clock in the morning by the physical demands for a smoke. Immediately he would begin to call to his friends in adjoining cells, and if they did not hear, he would call to the boys in the other cells to get them to assist in waking his nearest neighbors for cigarette material. If he could not succeed in that way, he would take his shoe or some other substantial object and pound the iron walls of his cell until he sometimes woke nearly everyone in the jail in his attempt to rouse the nearest boys for the "loan of a smoke."

One of the first things I noticed in the boys who came into the jail was that they told me that in their desire to reform they intended to cut out cigarettes. I was a total abstainer myself in every way and had not been particularly interested in the use of cigarettes by anyone else, and for a long time I did not think of speaking to the boys in a way that would call for such statements voluntarily. I used to hear the boys talk to their relatives or friends (through the screen) and say that they intended to cut out cigarettes and begin all over again. For quite a while I gave to the boys a set

of sixteen questions to answer in writing, concerning the causes that led to their being locked up in this place. Fully 75 per cent. would mention cigarettes as a contributor. Some even told me that when they were younger and were on the streets, their craving for a smoke would cause them to steal in order to secure money or something by which they could procure cigarettes. Others testified that they had not learned to use liquors in excess because they preferred the cigarette.

It may be of further interest to know that but few saloon keepers have cigarettes for sale and that they are opposed to their use on the ground that they prevent the sale of alcoholic wares.



### Topics for Discussion

1. What alcohol may take away: Hosea 4:11; Health, strength, skill, understanding, self-control, happiness, character, property, life.
2. Our local cost of poverty due to drink. (See p. 25)
3. Social drinking: Its temptation, dangers, how to meet them.
4. The expense of drink to the individual: how different from luxuries like automobiles, jewels, travel, etc.
5. Drink from the employers' point of view; from the workman's.



Hold young people for abstinence by pledge renewing. In Bible schools young people's organizations should canvass all young people over fourteen years of age for a definite pledge. Each year revise the list and ask for a reaffirmation pledge, as, "I reaffirm my pledge to abstain from all intoxicating drinks as beverages." Thus those who have broken their pledge may be helped to start again and be saved before the habit becomes too strong to be broken off.



Self-mastery means holding one's self and one's powers steady to their true use; not lack of use—deficiency; not over-use—prodigality; not misuse—the inappropriate, the improper; not abuse—the injurious; but nature's true full use. It does not mean repression, but control. Mastery of self, through mastery by God in order to be of service to one's fellows is the ideal one should steadily strive for.—*S. D. Gordon.*

### Hints For Information

Whether a man drinks two and a half ounces of whiskey, or one pint of wine, or one quart of beer, he gets the same amount of alcohol.

Of every one hundred men in the United States in all occupations who died in 1908, 15 died of tuberculosis; but 20 in every hundred deaths among saloon-keepers, bar tenders and liquor dealers were due to tuberculosis.

"The boy wants to be a man more than he wants anything else in the world." Help him to distinguish between true manliness and what he thinks is manliness—the habits of tobacco and alcohol using.

In 465 cases of sunstroke in the United States in 1896, 30 per cent. were immoderate drinkers, 50 per cent. so-called moderate drinkers and only 20 per cent. abstainers.

Of 140 persons who died from sunstroke, only 10 per cent. were abstainers.

The drink habit begins early; 45 per cent. of 865 immoral, inebriate women in reformatories in Great Britain in 1909 began to drink before 21 years of age. In 40 per cent. of the cases there was no apparent reason why they should have become immoral but for antecedent alcoholism.

The Berlin General Electric Company introduced, Jan. 1909, the sale of non-alcoholic drinks. In thirty months, the per capita consumption of these drinks rose from 6 to 28 liters, and the consumption of beer fell from 18 to 13 liters.

The *Titanic* carried down 1,662 persons. Two continents were aghast, and instituted strict inquiries, regulations and prohibitions to prevent another such disaster.

*Alcohol* is estimated, conservatively, to carry off 1662 adults every nine days. Where are the investigations, regulations and prohibitions of this continuous human shipwreck?

Ninety-five per cent. of the 29,657 persons committed to prison in Massachusetts in 1911 were of intemperate habits, according to the official report of the Prison Commissioners; 63 per cent. of all arrests were for drunkenness.

In Kansas, more than 50 per cent. of the jails in 1910 were without a prisoner under conviction; 75 per cent. of what prisoners there were, were estimated to be violators of the prohibitory law.

"They enslave their children's children  
Who make compromise with sin."



## Side Lights on Various Subjects by Recent Writers

**S**OCIETY has not only the right but the duty to make a thorough study of all the families in the state and to know their good and bad traits. It should locate traits of especial value such as clear-headedness, grasp of details, insight, organizing, mechanical, or artistic ability. It should locate anti-social traits such as feeble-mindedness, epilepsy, delusions, cravings for narcotics, tendency to wander, to steal, and to commit wanton cruelties upon children. It should locate strains with an inherent tendency to certain diseases. It should know where the traits are, how they are being reproduced, and how to eliminate them. It is the province of the new science of eugenics to study the laws of inheritance of human traits, and as these laws are ascertained, to make them known. There is no doubt that when such laws are clearly formulated many certainly unfit matings will be avoided, and other fit matings that have been shunned through false scruples will be happily contracted.—Charles Benedict Davenport. (1)

**A**S WE face this problem of training the boys for self-controlled citizenship, there are some fundamental reasons for encouragement. Our primary asset is the undeniable fact that the boy wants to be a man more than anything else in the world. It is a mania with him sometimes, and most of his vices are to be interpreted in the light of it. The imitated swagger and bluster, the awkward attempts at profanity, the early experiments with cigarette and cigar, are not due to any inherent liking for these things, or to a depraved taste, but simply to the overpowering hankering after manhood's estate and a man's characteristics. Here is a mighty impulse to be tamed and utilized. Let the impulse to imitate the externals of the life of men be directed inward to hasten the development of essential manliness in the unseen life. You can count on the boy to help you make a man of him, because nothing would suit him better.—George Walter Fiske. (2)

**T**REATMENT of mental disorders is mainly preventive. In its full scope it includes eugenics, whereby the unfit are discouraged from marrying and thereby producing delicate and unstable offspring; it includes medical inspection by the right kind of medical inspectors, who are watchful for signs of a neurotic constitution or the signs of a nervous breakdown; it includes a revision of our school system, with more emphasis on health and efficiency and less on the size of the curriculum; it includes the better teaching of children the laws of hygiene,—the effects of alcohol, tobacco, tea and coffee, vicious habits, late hours, poor ventilation and improper food; it includes child-labor laws which state that over-work in school and overwork in the factory are unlawful. A strong, vigorous body and right habits altogether abolish nervous disease.—Walter S. Cornell, M. D. (3)

**I**F IT is worth while for a rich man to pay all the expenses of an anthropological expedition, and for a great university to equip with trained men led by one of the greatest

authorities of the day upon the subject, then surely it is a worthy undertaking for rich men to create a foundation for the study of the alcohol problem that has such bearing upon the moral well-being of the whole people.—Robert Bagnell, Ph. D., D. D. (4)

**S**IZING it up, one against the other, I conclude it is better for me not to drink. I have much more time that I can devote to business; that I think more clearly, feel better, do not make any loose statements under the exhilaration of alcohol, and keep my mind on my number constantly. The item of time is the surprising item. It is astonishing how much time you have to do things in that formerly you used to drink in, with the accompaniment of all the piffle that goes with drinking! When you are drinking you are never too busy to take a drink and never too busy not to stop. You are busy all the time—but get nowhere. Work is the curse of the drinking classes.

Any man who has been accustomed to do the kind of drinking I did for twenty years, who likes the sociability and the companionship of it, will find that the sudden transition to a non-drinking life will leave him with a pretty dull existence on his hands until he gets reorganized. This is the depressing part of it. You have no where to go and nothing to do. Still, though you may miss the fun of the evening, you have all your drinking friends lashed to the mast in the morning.—Samuel G. Blythe. (5)

**T**O HAVE preserved customs, fast going into oblivion, that were characteristic of the spinning wheel period of our history; to have photographed the beautiful character of a grandma whose life linked the spinning wheel period with the automobile days, to have illustrated the skill with which lessons and sweetness, gathered on her journey by the little girl of long ago were transferred to her playmates of today—anyone of these achievements would have been sufficient excuse for adding to the world's store of books. But when this is done with a grace that delights and at the same time valuable suggestions are furnished to parents on the lonely hillside and teachers in the city schools, the result is truly a literary gem. That is the kind of book Mrs. Ella B. Hallock has produced in "In Those Days." (6)

1. **Heredity in Relation to Eugenics**, By Chas. Benedict Davenport. 300 pp. \$2.00 Net. Henry Holt & Co., New York.

2. **Boy Life and Self-Government**, By George Walter Fiske. 310 pp. Association Press, New York.

3. **Health and Medical Inspection of School Children**, by Walter S. Cornell. M. D. 614 pp. \$3.00 Net. F. A. Davis Co., Philadelphia.

4. **Economic and Moral Aspects of the Liquor Business**. By Robert Bagnell, Ph. D., D. D. 178 pp. \$.75. Funk & Wagnalls Co., New York.

5. **Cutting It Out**. By Samuel G. Blythe. 60 pp. \$.35. Forbes & Co., Chicago.

6. **In Those Days**. By Ella B. Hallock. \$.40. MacMillan Co., New York.

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Statistics of United Kingdom Temperance and General Provident Institution, 1841—1901.

Reported to the British Parliamentary Interdepartmental Committee on  
Physical Deterioration, 1904.



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# SCIENTIFIC TEMPERANCE JOURNAL

— *Continuing the* —  
SCHOOL PHYSIOLOGY JOURNAL



A TANG in the air, brilliantly lighted shops, streets thronged with good-natured crowds, bright faced children tip-toe with expectancy, glossy green wreaths, crimson bells and streamers, merry greetings and interchange of gifts,—yet, this is not the Christmas.

WEARY children working long hours to supply the joys of their fortunate brothers and sisters, foot-sore cash girls and errand boys trudging about with change and parcels, insufficient food and clothing, cheerless homes, dark alleys, selfish over-reaching, sullen discontent—surely, this is not the Christmas.

FACES bright in anticipation of giving rather than of receiving, cheery words and the warm handclasp to hearten the discouraged, the spirit of helpful sympathy, the good will that each year seeks to realize a little more perfectly the Christ ideal in the relations of man to man, love which is always service,—this is the true Christmas.



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## The Gist of It

**A**MONG the advantages sometimes claimed for social drinking is the relief of seriousness, the lightheartedness which it is thought to give. Prof. Kraepelin in his thoughtful address to university students weighs and answers that claim. *p. 38.*

**I**F THE battle against tuberculosis is to be successful it must be waged against the soil favorable to the development of the germ as well as against the germ itself. The Cincinnati Tuberculosis Survey analyzed the conditions of drink, dark dirt and damp and came to the conclusion that the disease was less a question of infection than of susceptibility induced by unhealthful influences. *p. 40.*

**I**S ALCOHOL a cause of degeneracy or only the symptom of existing weakness, is a question frequently met in considering the hereditary effects of alcohol-using. Clear human evidence of its effects on progeny as the direct cause of degeneracy is difficult to obtain owing to the many elements of environment and the almost impossibility of securing ancestral histories entirely free from the alcohol habit. As far as animal life under controllable conditions can afford evidence by which human experience can be checked, Dr. Stockard's experiments seem to show clearly the results of parental alcohol-using upon the young, and that along the very lines of nervous weakness which in human life have been thought by some to be merely the expression of an already existing nervous weakness. *p. 41.*

**T**HE perplexing cigaret problem of youth is not founded on natural physical inclination says Dr. O. S. Davis (*p. 46*) but on false ideals of manhood and on the desire to follow the example of one's elders. That even the youthful elders do not escape physical and mental disadvantages from the habit of tobacco-using appears in the study by Dr. Frederick Pack, of foot-ball try-outs and scholarship in various American colleges and universities. *p. 47.*

**W**HY does drink consumption in the United States continually increase despite the temperance work done? A partial answer is to be found in the drink consumption of the foreign-born, many of whom not only drink themselves but establish the drink habit in their children. *p. 41.*

**M**ORTALITY statistics in the United States are well known to be imperfect. Especially is that true in the case of the

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liquor-selling occupations with which are grouped in mortality rates occupations like restaurant keeping, in which by no means all concerned have to do with liquor handling or using. Foreign statistics give a better index to the unhealthfulness of an occupation which apart from the temptation to use alcohol affords no special cause for a high mortality rate. *p. 44.*

"If it is a crime to make a counterfeit dollar, it is ten thousand times a worse crime to make a counterfeit man.—A. Lincoln.



# Scientific Temperance Journal

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No. 4

“**N**ONE is so poor that he cannot give something at this season of the year. Hope, cheeriness, and courage are far above rubies. Sympathy, friendship and love are beyond price.”

## The University Man and the Alcohol Question

BY PROF. EMIL KRAEPELIN

University of Munich

**T**HE momentous alcohol question, which affects the weal and woe of whole nations, knocks loud and long even at the gates of academic life. Indeed for the German student, this question together with that of sexual hygiene, is perhaps the most important of all problems which concern him directly and which he must himself help to solve. The use of alcohol is a matter of public concern as much as any other business that is such as to endanger important general interests. Consequently the student world also will have to consider the question whether its drinking customs are really only a harmless form of enjoyment.

Unfortunately habits of this sort are not as a rule given up so easily as they are adopted. Even though the majority of students after awhile lose their liking for the many silly carryings-on at the beer-house, or, yielding to necessity, devote themselves to the real object of their stay at the university; nevertheless not a few young men go to ruin every year in consequence of student drinking customs, and these are by no means always the men of least intelligence, as is evident from familiar examples.

### AN ENEMY TO TRUE POWER

The fact that the majority of students suffer no lasting injury from their intemperance is due to the resisting power of the system in the young. Nevertheless, many a jolly student has to pay for the fleeting hour of intoxication by seriously endangering his whole life's happiness, even though he may succeed in freeing himself from slavery to alcohol. Alcohol increases sexual excitability. Hence everywhere we see alcoholic and sexual excesses going hand in hand. The consequences of this habit are truly awful.

We may not hope to banish these evils entirely from our social life, but there is not the slightest doubt that the eradication of our drinking customs would also take from the scourge of sexual disease a large part of its power. Almost three-fourths of all

first cases of infection among educated young people originate during intoxication.

In student circles it is the custom to regard excesses as justifiable, and all objections are looked upon as petty carping criticism, which would fain fashion the vigorous spirit of youth into goody-goodyism. This conception is totally false. Excesses are not the sign of power, but of weakness; they destroy relentlessly the precious gift of youthful vigor, which an unimpaired body can preserve even into old age.

### THE STUDENT'S RACIAL OBLIGATION

The student must remember, too, that he is not alone in the world and not here just for himself. His parents, the community to which he belongs, the wife whom he brings home, the children whom he begets—all have a well-founded right to demand that he shall conserve his health and strength instead of squandering them wantonly, that he shall retain the sensibility, the capacity for enthusiasm, and the energy of youth for the solution of life's problems, that he shall not, as a worn-out, surfeited weakling, lose the best that life can offer us, joy in our work and in the fulfillment of duty.

### PREPARATION FOR LEADERSHIP

But in another and quite different sense, the life of the student belongs to the community. We all look with pride and joyous hope upon the young people in our educational institutions. They are to furnish the leaders in the struggle of the nation toward spiritual, moral, and political development, they are to bring to maturity that for which earlier generations longed and strove. Consequently, there falls upon those who are cultured the tremendous responsibility of being, willy-nilly, *educators of the masses*.

This is undoubtedly the most important point in the alcohol question as far as the students are concerned. Even if one should admit that they have the right to injure their own bodies and minds as they choose, yet they will and must themselves shrink back appalled at the immeasurable evil that their



careless example brings upon their fellow-countrymen.

#### WHAT THE PRACTICAL FUTURE WILL REVEAL

You will all later enter practical life. What perhaps seems to you today to be well-meant exaggeration, you yourselves in the future will see with alarming clearness, whatever profession you may adopt—the alcohol curse of our nation.

The clergyman will see how the drinking habit undermines morality and the capacity for inspiration. He will see the relentless degeneration of the families of drinkers, as the head of the house goes to ruin and sinks into moral depravity. Over against these events, running their course uninterruptedly in thousands of instances, he stands powerless.

To the future judge it will be clear that 70 to 80 per cent. of all beggars and vagrants are victims of drink. Not a court session will pass in which the inner connection of moral offenses, violent assaults and murder, with intoxication will not appear in unmistakable colors.

The government official and political economist will reckon up the enormous sums that are spent every year for the pleasures of alcoholic excitation, four to five times as much as for the army and navy put together. To this must be added the expense for police and the administration of justice, so far as these are concerned with drinkers and drunkards, the support of tens of thousands who are impoverished directly or indirectly through the drink habit, and finally the large place filled by drinkers and their offspring in hospitals and insane asylums.

Much more serious even than this incalculable economic tribute that we pay every year to alcohol, must be, in the eyes of the true patriot, the fact that the drink habit is gradually undermining the general health of the nation. If, as a physician, you take into account the fact that in Germany over 13,000 persons become victims of alcohol annually, that about one-fifth of all mental disorders are produced by alcohol, that alcohol shortens the average longevity and diminishes the power to resist every possible variety of disease, it seems perfectly incomprehensible that physicians have not already entered upon the campaign against alcohol with far greater energy than is actually the case.

The teacher will come to know all too soon the tired, languid, and withal excited little creatures, who are incapable of satisfying the demands of the school because

alcohol is given them more or less regularly by their parents. He will see, too, the sickly, nervous, depraved and neglected children from the families of drinkers, and they will show him plainly toward what goal we are moving.

So then, there will not be one of you to whom life will fail to show, over and over and in the most varied manner, the physical, moral, and economic decline consequent upon the spread of the alcohol habit.

#### THE SECRET OF ALCOHOL'S HOLD ON SOCIAL CUSTOM

Inevitably the question will come to you: Why did we in our student days regard drinking as our right, nay, our duty? The answer that first presents itself is this: It was the pleasure connected with drinking that led us to take up the mug and glass. That is true. Alcohol produces a joyous exhilaration, a feeling of increased capacity for work, and enhanced enjoyment of life, which is undoubtedly the final cause of its spread as an excitant. From the recommendation of a wine-seller I learn that wine enlivens the imagination, facilitates thought-connection, quickens the memory, is favorable to the clear and rapid reception of impression and to the formation of judgments. *Every word a lie!* Careful investigation, continued for decades and conducted with the finest apparatus, to determine the psychical effects of alcohol, has shown beyond peradventure that *exactly the reverse* of all those assertions is actually the case. Alcohol paralyzes the imagination, renders the connections of ideas more difficult, weakens and falsifies the memory, and produces a very marked derangement of the power of apprehension and of judgment. On the other hand, vocal expression is facilitated and in general, the setting free of activities, whereas the movements themselves become slower and less forcible.

#### NO COMPENSATING ADVANTAGES

This is the unfalsified picture of the effect of alcohol, to which prejudiced observers have added a number of wholly fictitious features. I must confess that I have been greatly surprised myself at the results of accurate experiments, for I was looking for such favorable effects of alcohol upon our mental life as should compensate for the mischief wrought thereby. But now we see clearly what is the nature of the condition into which we put ourselves by the use of alcohol. *A paralyzing of the power of apprehension and the higher mental functions, which finally leads to the well-defined*



*clouding of consciousness, and an excitation in the realm of the impulses, which lets the control of our wills slip away from us more and more.* And this is the condition that we light-heartedly make the centre of our good times, for the sake of which we affectionately form those drinking customs which devastate our nation. Even if alcoholic intoxication produced all those desirable effects upon our mental life which are ascribed to it by liquor-dealers and drinkers in their enthusiasm, we should have to turn from it in horror as soon as we beheld its terrible footprints on our national life.

#### THE NATIONAL LOSS IN ALCOHOL COMRADESHIP

We are still a young aspiring nation which does not need the pitiable assistance of an artificial excitant in order to think and feel and act nobly. Alcohol has seemed to us a nice plaything or even an amiable friend, an ever-ready comforter and helper in sickness and weakness. Today, however, we know that the jolly comrade, for the price of one hour of exhilaration, cheats us out of our self-respect, that it brings to ruin every being and every nation that yields to it. Whoever recognizes this incontestable truth can be no true man if he is not seized with righteous anger against the poison which those prize most highly who are its most helpless victims, which with unheard-of oppression has forced whole nations into bondage to itself.

#### THE APPEAL TO MODERN MANHOOD

What example has produced can in turn be done away with by example. But this example must come from above, from those who are the salt of the earth. For the student world, there is a peculiarly pressing

duty. Yours it is, fellow-students, to do away with the remnants of mediæval barbarism that still disfigures your customs. Our movement against alcoholism is the sign of a new era, which has some thought for itself, and courageously overturns old, deep-rooted mouldering prejudices. We wish to be *modern men*, and therefore young people must take the lead. Then the nation will follow willingly, as it has followed them hitherto.

What we want is a healthy, happy people, strong in mind and body.

When foreign enemies threaten our borders, it is our young men who take up arms against them, and the flower of the army is made up of our students. They are the ones who inspire it with that high moral spirit which is the prerequisite of success, and for which our neighbors so greatly envy us. Today, when we have to do with an internal foe, perhaps more dangerous for us than all foreign enemies, should the student-body hang back, simply that it may not be obliged to give up certain favorite customs?

The opposition offered to the campaign against alcohol by ignorance and thoughtlessness, precedent and tradition, by love of gain and money interests, is quite extraordinary. There will be all too many who will grasp at any straw to save their beloved drinking customs. To them we will say, "Go on with your drinking; we fortunately no longer need it." But all those among our university students who have kept a clear head, a warm heart, and a firm will, will recognize the tremendous importance of the alcohol question, will sympathize in the danger to our nation, and with fresh determination will act accordingly. With their help we shall conquer.—*Translated for THE SCIENTIFIC TEMPERANCE JOURNAL.*



### College Leadership in Good Habits

BY GEORGE W. ANDREWS, D. D.

**I**S IT not time to begin an agitation which will awaken our colleges to a sense of their responsibility for leadership in all things which have to do with our public welfare? While the demands of business and public safety have been compelling leading firms and corporations to take advanced grounds against the use of all alcoholic beverages on the part of employes, and in some cases to refuse to employ young men who smoke cigarets, we see college men

who ought to be leaders of public opinion sitting down to tables decked with well-filled and repeatedly filled beer mugs and glasses filled with stronger drinks. College smokers are the order of the day and all alumni banquets are so redolent with the weed that the clothes and lungs of smokers and non-smokers are thoroughly saturated.

If we cannot look to our colleges for leadership in these matters which the legislatures, corporations and advanced scientific



investigators have pronounced harmful, where are we to look for leadership? We spend hundreds of dollars and even thousands to prepare our boys for leadership. We send them to college and behold! the influence of many trustees, members of the faculty and alumni is against the kind of leadership the world is requiring. Young men coming from homes where the manliest lessons are enforced, are subjected to a pressure to disregard these lessons and, in order to maintain social standing in the college, are tempted to do as the others are doing. It is not an easy matter for a freshman to resist. It may be too much to expect that all drinking and smoking shall cease. There always will be those who will yield to the coarser appetites. But is it too much to ask that members of the faculty be required to be total abstainers from alcoholic beverages and tobacco? They ought to set an example in harmony with the scientific teaching of the secondary schools.

Is any superiority as a specialist in any department of the college curriculum a sufficient compensation for a lack of leadership in these things which so vitally affect and which are destined more vitally to affect the future welfare of the students? Is it too much to ask that college authorities set themselves like flint against these weakening customs?

I am well aware that those who protest against these customs are going to subject themselves to the bitter criticism of those who, in their short-sightedness, look upon these things as harmless follies, but for the sake of the young men who need strong bodies and clear minds to meet the demands of the day, I, for one, am willing to bear my share of the criticism. Some day the protest will be heeded and these things will be banished from our colleges, and our colleges will be abreast of the times instead of laggards as at present.—*The Congregationalist*.



### A Cincinnati Story of Tuberculosis

THE slogan for anti-tuberculosis work has long been "Fight the three D's—Dark, Damp, Dirt, but for some reason, possibly merely lack of recognition of its importance, the fourth "D"—Drink—has had little really earnest emphasis placed upon it. In one large tuberculosis exhibit a few years ago the only mention made of the factor of drink was a brief sentence, "Don't Drink," in moderate sized type among other "don'ts" hung in an inconspicuous corner.

Of recent years the tuberculosis literature has shown improvement in this respect though it is still a source of surprise to those who know the volume of evidence on this point, that so little clear, definite information is given as to the reasons why the drink habit increases susceptibility to disease, renders recovery more uncertain, and hence should be avoided.

Of special interest, therefore, are the conclusions from a special survey made by the Cincinnati Anti-Tuberculosis League in four districts where a high tuberculosis death-rate, dampness, drink, vice, poor sanitation, or a mixed foreign population gave elements for a fruitful study of conditions.

From 20 to 44 per cent. of the buildings were found to be in bad sanitary condition. On the count of "Dampness" the proportion was only 1 per cent. and 4 per cent. respectively in two districts, and ten per cent. in

the other two districts. "Darkness" appeared in 5 per cent. in the other two. "Dirt" was conspicuous in 8, 25, 35 and 43 per cent. of the homes of the four districts. "Dampness" and "Darkness" may be conditions out of the control of those obliged to rent in these localities, but "Dirt" which appeared in the larger number of cases is measurably within control.

The same is true of "drink" expenditure. The average expenditures per family for drink for the four districts was respectively \$1.15, \$5.67, \$1.54, and \$1.32 per week.

Here again is fresh evidence of the fact recently referred to in the JOURNAL that improvement in housing conditions could in part be secured by educating the families to divert drink money to rent. In every district, the average family could have added at least one room to its crowded home with a surplus for heat, light, and other comforts that are conducive to health and to morality, if the drink money had been spent on the home.

The conclusions from the survey as to the influence of drink and dissipation ought to quicken work against alcoholism as a preventive of tuberculosis as recommended by the International Tuberculosis Congress.

"It seems a logical conclusion from the analysis of our figures," says the report, "that dissipation must take the lead among the causes of consumption with damp living and



sleeping rooms second and bad living conditions third. The facts would go, further, to indicate that if drink and dissipation were eliminated in Districts 3 and 4, the bad living conditions as a factor would be greatly minimized.

"Furthermore, do not the facts strongly indicate that a susceptible physical condition brought about by debilitating influences such as other diseases, dissipation or anything that lowers the resistance, cut more of a figure in the development of tuberculosis than we have been led to believe? Is it not more a question of susceptibility than a chance of infection."

Perhaps the most sinister fact brought out by this survey is the discovery of beer drinking among the children of these districts in families of the predominant foreign elements. In the Hungarian families, 42

per cent. of the children drank beer; in the Irish families, 48 per cent.; in the Italian 49 per cent.; and in the Russian 74 per cent.

Here is making the soil for future disease, here unquestionably are shaping the elements of morbidity, unsettled nervous conditions, possible degeneracy, of the continued community burden of poverty, ill-health and possible crime.

The least that should be done is to teach these children themselves in the public schools the dangers in the use of alcohol. Into those homes should go warnings to parents against giving the children beer.

The program for controlling and preventing present and future tuberculosis will never be complete until it includes full and adequate plans for combating also the evils of alcohol.



## An Experimental Study of Racial Degeneration in Animals Treated With Alcohol

BY CHARLES R. STOCKARD, PH. D., NEW YORK

SCHWEIGHOFER has recorded an interesting individual case. A normal woman married a normal man and had three sound children. The husband died and the woman married a drunkard and gave birth to three other children; one of these became a drunkard, one had infantilism, while the third was a social degenerate and drunkard. The first two of these children contracted tuberculosis, which had never before been in the family. The woman married a third time and by this sober husband she again produced sound children.

This is an important human experiment. The female was first tested with a normal male and gave normal offspring; when mated with an alcoholic male the progeny were defective as a result of his poisoned condition. She was again tested with a normal male and found to be still capable of giving sound offspring. A number of such cases are on record.

The experiments here recorded have been undertaken in order to ascertain whether alcohol did exert a marked influence on the germ cells and developing embryos of animals, and, if possible, to demonstrate the nature and mode of action of this influence.

The animals are first tested by normal matings and found to produce normal offspring. The alcoholic treatment is then be-

gun on a given number of individuals and males and females mated in different combinations according to whether they are alcoholics or normal.

Alcohol is administered to the guinea-pigs by inhalation. At first it was given with the food, but the animals did not relish it and therefore took less food. By the inhalation method, forced feeding was avoided that would have upset the animals so that the results might have been modified by their poor bodily condition.

The experiments have been conducted on guinea-pigs, since they breed fairly rapidly and rear their young without much difficulty in the laboratory. Strong healthy stock has been chosen and the animals have been carefully handled. All have remained in vigorous health and most of them have increased in size and fattened during the progress of the experiment. No structural changes were found in any of the animals examined even after fifteen months of treatment. Their general health and behavior indicated that they were in good condition. One cannot claim therefore, that this treatment is greater in proportional amount than the alcohol a human being often takes. The fact is that these animals have never been completely intoxicated, but receive only enough alcohol six times a week to affect their nervous states. They may be compared to a



toper who drinks daily but never becomes really drunk. The only indication of the effects of the treatment is shown by the quality of the offspring they produce.

Fifty-five matings of treated animals have been made. Forty-two of these have now reached full term and are recorded. From forty-two matings only seven young survived and six of these are still living, five of which are runts, though their parents were unusually large, strong animals.

The following combinations were made:

1. Alcoholic males were mated to normal females. This is the paternal test, and is really crucial proof of the influence of alcohol on the germ cells, since the defective offspring in this case must be due to the modified germ cells of the father. Of 24 matings of this type 14 gave no result at all, only 12 living young were born in 5 litters. Seven of these died soon; only 5 have survived and these are unusually small and svery shy and excitable animals.

It is a point of some interest that all of the young animals that died showed various nervous disturbances, having epileptic-like seizures, and in every case died in a state of convulsion. This is commonly the fate of feeble and nervously defective children.

The important fact in the above case is that only the father was alcoholic, the mother being a normally vigorous animal.

2. Normal males were mated with alcoholic females. This is the maternal test. In such cases, the alcohol may affect the young in two ways—by modifying the germ cells of the mother, or by acting directly on the developing embryo. There are only four such matings. Three living litters were born, one consisting of three premature young that died at birth. The other two litters consisted of one young each which have survived.

The alcoholic treatment in one of these cases was not begun till after the mother had been pregnant for about three weeks. In the other case the animal was weak and

small for several months but finally recovered and developed into a normal animal. She was mated with an alcoholic. She was killed by accident, but one of her young was found to be deformed and showed decidedly degenerate and feebly developed hind legs. All the affected offspring of alcoholic guinea pigs are weak in their hind extremities and drag their legs. Yet none showed a noticeably structural effect except this one which had one alcoholic grandmother and an alcoholic father.

Finally we may consider the results of pairing two alcoholized individuals. The third line of the table summarizes these results. As might have been anticipated, this type of mating has given the highest fatality of all.

Ten out of a total of 14 matings have given no offspring or early abortions. Three still-born litters have been produced, each consisting of two young.

*Only one living litter was born from the 14 matings in which both parents were alcoholic and this litter consisted of but one weak individual which died in convulsions on the sixth day after birth.* This is indeed a decided effect of alcohol on the offspring when one compares it with 9 control matings of normal animals, all of which gave living litters containing a total of 17 individuals all surviving and all large, vigorous animals for their ages.

| Conditions of<br>Animal                   | TABLE             |                                |                    |                                |                   |                                 |                 |
|---|-------------------|--------------------------------|--------------------|--------------------------------|-------------------|---------------------------------|-----------------|
|   | Number of matings | No result or early<br>abortion | Still-born litters | Number of still-<br>born young | Living<br>litters | Young dying soon<br>after birth | Surviving young |
| Alcoholic Male by<br>normal female        | 24                | 14                             | 5                  | 8                              | 5                 | 7                               | 5               |
| Normal male by al-<br>coholic female      | 4                 | 1                              | 0                  | 0                              | 3                 | 3                               | 2               |
| Alcoholic male by<br>alcoholic female     | 14                | 10                             | 3                  | 6                              | 1                 | 1                               | 0               |
| Summary                                   | 42                | 25                             | 8                  | 14                             | 9                 | 11                              | 7               |
| Normal male by nor-<br>mal female—control | 9                 | 0                              | 0                  | 0                              | 9                 | 0                               | 17              |

## THE GRACE OF HUMOR

I have often felt that the time has come to raise another figure to the hierachy of Christian graces. A man may be faithful, hopeful, and charitable, and yet leave much to be desired. He may be useful, no doubt, with that equipment, but he may also be both tiresome and even absurd. The fourth quality that I should like to see raised to the highest rank among Christian graces is the Grace of Humor.—A. C. Benson.

### Nervousness in School Children

**N**ERVOUSNESS in school children who have alcoholic fathers, particularly in the large cities, is frequently found by observant school physicians, according to Dr. Herford, a German physician of Altona.

On the average, from four to five marked cases of nervous disorders have been found among every fifty school children examined on entrance to school. Among the most frequent derangements are night terrors, irritability, timidity, moodiness, St. Vitus dance, convulsions, and epilepsy.

Nearly all these children answer yes, when asked if the father drinks alcoholic liquors. With this go the other factors common in intemperance such as defective housing and food, insufficient sleep and lack of proper training.

Another report to the same effect from Dr. P. Meyer, reviewing the work of the school physicians of Berlin for the years 1909 and 1910, states that 320 children were found, 202 boys and 118 girls, suffering hereditary afflictions due to the alcoholism of their fathers; in only eight boys and five girls was the heredity due to the alcoholism of the mother. These children were also found to be more frequently afflicted than other children with tuberculosis, anaemia, scrofula and rachitis.

### What Temperance Work Saves the Public

**T**HE secretary of the poor fund in Leidschied has compiled some figures showing what three drinkers have cost the community.

Between the years 1900 and 1911 for drinker, "H. H.," there was expended for maintenance, for care of the wife, and for bringing up his children 4,957 marks or \$1299.50.

Drinker "F. P." from 1904 to 1911 had cost \$369.13 for maintenance, clothing, and support from a charitable institution.

The third drinker, "W. S.," in seventeen years ending 1911, had drafted upon the public treasury to the extent of \$338.24 for maintenance, care in an institution, care of the children and hospital treatment for the wife.

All three cases are still being helped in various ways.

There is sound public policy in the action of several European governments which contribute to the work of the temperance so-

cieties whose object is the prevention of alcoholism or the rescue and restoration of the drinker.

In this same town of Leidschied, the Blue Cross Society in 1907 estimated that it directly saved the town annually nearly \$400. The drinkers it had rescued paid in taxes at least \$180, while as drinkers they had contributed nothing, and, further, it was certain that some of them with their families would have been a burden on the public treasury. Had this been the case with only five, the city would have been compelled to pay out at least \$250 more from its poor funds.

Similar evidence of the financial value of work with the drinker was given at the National Conference of Charities and Corrections at Boston in 1911. Mr. Edwin Mulready, probation officer, reported on 102 cases of men brought before the courts for drunkenness in six months. All were cases in which a five dollar fine would have been imposed with the alternative of spending several days in jail. In these 102 cases of sentence suspended the men earned for themselves and their families \$1370 during the time they would have spent in jail. In jail, they would have earned nothing; it would have cost \$361 to keep them in jail and to transport them. The country further received from each of these men the \$5 fine which ordinarily would have been paid by only 11 per cent. There was a net saving to the community of \$1540.

The cost to the county every time it collects a five dollar fine, Mr. Mulready stated, is \$15.40, a species of financing that reminds one of the classic illustration of the frog jumping out of the well. "When shall we awake" asks Dr. Menas Gregory, "to the larger opportunity of prevention?"

### Child Proteges of Prussia

BY DR. A. HOLITSCHER

**F**OR ten years, Prussia has pursued the policy of training at public expense the neglected children who, if not properly trained, grow up to recruit the unsocial elements of the population. The reason for instituting this training was chiefly lack of parental care and protection. More than a third of the children so cared for are from parents who are either mentally defective or of vicious tendencies. A large part of the children had already been convicted in the courts before they were taken in charge by the institution. And the number of those



needing such care and training during their minority is constantly increasing. About \$25,000,000 have already been spent in the erection of buildings for these state proteges.

Approximately twelve per cent. of the charges are mentally abnormal. In 40.8 per cent., the mental defectiveness is due to hereditary conditions, the chief of which is intemperance of one or both parents.—*Translated for THE SCIENTIFIC TEMPERANCE JOURNAL.*



## The Mortality of Liquor Dealers

The occupation of selling liquor is a dangerous one for those engaged in it according to accumulating evidence from mortality rates of various countries.

A French physician has published in *La Presse Médicale* figures showing that while the general mortality in Paris is 36.1 per 1,000 for adult males 30-49 years of age, for

saloon keepers it is 46.9. In Switzerland the rate is 25.8 for the same general class and 42.59 for saloon keepers.

In England the figures are put a little differently, but their import is even more unfavorable for the liquor sellers.

The English records compute the number of adult males between 25 and 65 years of age that it takes to furnish 1,000 deaths. The census is taken every ten years and covers a two-year period. In statistics of 1880-1890 there were 1,000 deaths to 64,000 of the general population, but 1,521 deaths to 64,000 public-house keepers. In 1880 to 1890 there were 1,000 deaths to every 61,000 of general male population at the ages stated, but 1,642 to 61,000 liquor sellers. In 1900-1902, the general health rate had improved so that there were 1,000 deaths to 71,000 of the general class, but the ages stated, but the improvement at the same rate failed to reach the liquor sellers whose rate was 1,669 per 71,000



## The Alcohol Question In The Light of Social Ethics

BY DR. B. STREHLER, NEISSE

**N**O MAN lives for himself alone. Along with the perfection of one's individual endowments, must go recognition of his dependence upon the community from which he receives and to which he gives.

In the days of sparse population and little intercourse, social ethics was a much less important consideration than it is now with our density of population and intricacy of commercial and social relations.

Social ethics demands recognition of a collective responsibility for the prevailing wants, abuses and immoralities; it means measuring one's own conduct by the effects it will have upon the morality of the community. It means a feeling of fellow responsibility for the stumbling and falling of one's brothers and incites to active efforts to form a public opinion for the protection of the individual against evils.

For example; Individual ethics teaches the duty of caring for one's health; but social ethics also enters in, for ill health is a source of care and anxiety to one's family and may become a loss or an expense to the community. But in times of epidemic the health of the individual becomes very specially related to that of the community and may have to be supervised for the safety of the general health. Care about expectorating is an obvious hygienic duty,

and the notices against spitting posted in public places as a precaution against the spread of tuberculosis are one method of training the social hygienic consciousness. All these considerations bring us very close to the alcohol question.

One can scarcely name a vital question of the day into which the alcohol question does not enter. The present alcoholism which we so much lament, this extensive net of official regulations, of opinions, customs and usages governing the establishments, industries and consumption of alcoholic drinks, has not always existed. Nor has it grown overnight into such an immense poison tree. For a thousand years this dangerous, life-destroying foe to civilization has been allowed to develop. Manufactories and capital, railroads, bottling establishments, land ownership, financial policies, all combine together for the production of "alcoholism" in its present dimensions.

As old as time is the fight of mankind against drunkenness. The modern anti-alcohol movement began by combating drunkenness. It continued until we learned to look upon and to treat cases of drunkenness from the standpoint of social ethics. We used to think drunkards were nothing but depraved men who in inexcusable weakness and malevolence had brought this evil upon themselves. Thirty years of



earnest work has shown that the drunkard is pre-eminently the acute symptom of the generally prevalent use of alcohol.

Drunkards are like boils and tumors on the sick body politic, while the real sickness is in the blood, brain and heart of the people.

When cholera breaks out we are not satisfied with treating the individual patient. Orders are issued for maintaining healthy conditions; the drinking water, food, houses and manner of living are all inspected and improved. There may be individual cases where this causes trouble and is burdensome. But an enemy of the community must be fought by the combined efforts of all. Every individual must cooperate and if necessary laws must be invoked to compel him to do so.

In the same way the fight against drunkenness must be traced back to its causes. It must be directed to the prevention of drunkenness.

Conservative estimates, founded upon the statistics of numerous city and country districts place the number of drunkards in Germany at about 400,000. To these must be added the 300,000 of unhappy wives who are made daily martyrs, and to these probably a million pitiable weak, frail children, an inestimable army of wretched humanity.

In all Germany there are scarcely a dozen cases of hydrophobia a year, and how carefully we guard against it. Upon the barest suspicion of hydrophobia the strictest measures are taken for the preservation of life. Must we not then give a thousand times as much care and attention to the drink problem?

The chief propositions from the standpoint of social ethics affecting the alcohol question are the following:

1. Through the habitual general use of alcohol there is brought about an inherited weakness in respect to this narcotic that is shown by a craving for alcoholic drinks and at the same time a lowered resistance to its poisonous influence.

2. This wide-spread weakness is also a factor in the prevailing drinking customs which by confirming the alcohol bias, or affording numberless occasions for drinking, awaken and develop slumbering tendencies.

3. It follows that today the individual is much more in danger than formerly from alcohol; further, in view of all this general danger—as against cholera or hydrophobia—much stricter measures of prevention should be taken than formerly seemed necessary.

From the standpoint of ethics, therefore, everyone who is seriously concerned about this matter must ask himself what can and ought I do in order that this state of things may be improved?

This question would receive varying answers from equally earnest persons interested in social welfare. To me it appears that first there must be a campaign against the use of intoxicating drinks until it loses its commanding place.

We should aim at putting a stop to the widespread inheritance of alcoholic weaknesses by securing a generation of abstainers and at the same time gradually, but surely, breaking up the alcohol customs. Give us a generation of abstinent parents, and let the children and grandchildren be born into an alcohol-free society and the question of drunkenness would be solved.

There are those who may object: "Let the drunkards drink themselves to death, the sooner the better. They care for nothing else and deserve nothing else. They are all a lot of diseased, worthless members of society. It is foolish to let considerations for such inferior individuals deprive others of a source of enjoyment."

That sounds plausible, but it is a very shortsighted view. Were all these people actually inferior at birth, or did many of them become such through the temptations of our alcoholized society? Have we not all seen examples enough of highly endowed young people ending in the deepest alcohol misery. From whom did they get their low resisting power? Were there not alcoholized individuals among their ancestors? Have not many delicately organized individuals been able to keep from breaking down in a non-alcoholic environment?

It is cowardly to close one's eyes to these sorrowful facts. It is more than thoughtless not to work with all one's might to put an end to this state of things.

If it is true—as it is—that such great numbers of inexperienced weak-willed men are forced, almost of necessity, from their tendencies and environment to a craving for drink, and thereby probably into crime, it is then without question the demand of social ethics that all who have sufficient comprehension and normal sympathy should stand together and by every means, but first of all by total abstinence from this dangerous substance, erect a firm dike against any further flood of this black stream of evil and misery,—*Translated for THE SCIENTIFIC TEMPERANCE JOURNAL.*



## Why Boys Smoke

By OZORA S. DAVIS, D. D.

President of Chicago Theological Seminary

**I**N SEEKING for the reason why boys smoke cigarettes it is well to think of some of the reasons that do not explain the fact.

Boys do not smoke because they have the natural taste for tobacco. Boys do not smoke for the same reason that they eat apples or watermelon. These taste good at the outset and there is no need that any boy should "learn to eat" fruit.

On the other hand he has to "learn to smoke." He does not know the reason why. We understand that the nausea and headache are due to the effort that nature is making to cast out the poison of the nicotine. He only knows that his first attempts with tobacco generally make him sick and he would stop in most cases with the first experiment if it were not for the challenge of this fact to his bravery and the ridicule that would come if he surrendered to a vomiting spell.

So boys smoke in spite of the natural tastes and early experiences that attend the use of tobacco and not because the physical system craves it or pronounces it good when the boy tries to afflict his body with the poison.

Boys smoke cigarettes because grown men smoke tobacco in all kinds of ways. They are imitating their elders and their superiors in their effort to be manly and grown up, as they regard it. The college man's pipe and the business man's cigar is the incentive to the boy's cigarette and his first chew of tobacco. The force of the man's example cannot be over-estimated in the influences that lead the boy to smoke. He is bound to try to do in his way what he sees grown men do in their way. Men ought to remember this when they smoke. They can endure the toxins in their mature bodies which will wreck the physical organism of the adolescent boy. It is very difficult to show the boy this fact, however; and he does to his lasting harm what the grown man sometimes may do without serious peril. Every man who smokes ought to reckon with the force of his example in this respect and ask himself if he cannot afford to give up a personal habit that is weighted with such serious possibilities to boys.

Boys smoke because other boys smoke. It is not a secret and solitary habit. Gener-

ally the corn-silk cigarette is the discovery of two boys and not of one. Bigger boys smoke and so smaller boys try it. Probably the example of the larger boy is more potent even than that of the grown man. It is thought to be a sign of being grown up. The fear of a boy is that he will be considered a "kid." If a cigarette will graduate him from the "kid" class he will brave a sick stomach and a bitten tongue for the honor.

He has a false idea of what it means to qualify for graduation, that is all. But the power of the false idea is beyond dispute. It is the privilege of the older boy to give him another standard. Until this is done boys will continue to learn to smoke because older boys do it.

Then boys smoke because there is a certain air of smartness which goes with it. It means that they have overcome the protest of their stomachs and won a certain victory. This brings a kind of sense of superiority gratifying to the boy. If it were a victory worth while it would be a praiseworthy thing to be proud of it. The cigarette is the sign of a victory that was not worth winning. If boys could see this they would be less inclined to smoke. The strength of which it is an evidence has been expended in a bad cause. And boys smoke because they have acquired the habit. The power of the cigarette habit is greater than we would be inclined to think. Boys in school who are in the clutch of it become its slaves. They cannot put their minds on their work. They are incapable of remaining long without the stimulant of another cigarette. Their whole physical and moral condition is involved. This is the universal testimony of teachers and it is something that is known to the writer from experience as a high school principal. The fetter of the cigarette habit becomes welded at last with a grip that no act of the weakened will alone can break. This is the terrible and tragic end of the matter in case after case. Boys think that they can smoke a little now and then when they please and that they can stop when they are ready to do so. They do not know that the very continuing of the use of cigarettes involves their wills so seriously that when they want to stop they cannot. This can be proven from every school in the country.

Boys smoke because they do not know the consequences; because they are led astray by the example of others; because they have false standards of conquest and progress; and because they are the victims of habit. There is not one valid reason why a boy should learn to smoke cigarettes; there is every reason why he never should do it, or if he is doing it, *why he should stop now.*



### Smokers In Foot-Ball Try-Outs

**T**O MAKE the team, is a pet ambition of many a youth as he turns his face collegeward. No sacrifice in college life is too great for this end. The honor won, the regulations as to sleep, diet, exercise and various indulgences, are cheerfully obeyed "for the honor of the team."

Now comes evidence that the youth needs to begin his preparation before he enters the college or university athletic field. Dr. Frederick J. Pack of the University of Utah, has been gathering evidence on the effect of smoking as shown in college students, and as the test of athletic fitness, selected the foot-ball "try-out" as affording the best comparable evidence of fitness of smokers and non-smokers.

### TWICE AS MANY NON-SMOKERS MADE THE TEAM

Twelve colleges and universities in all parts of the country supplied the facts about their foot-ball squads. Six institutions furnished data about the "try-out." A total of 210 men contested for positions on the first teams. Of the non-smokers 65.8 per cent. were successful; of the smokers only 33.3 per cent. were successful. This was not only true in the six institutions taken as a total, but in each of the six, the non-smokers far outstripped the smokers. In one institution not a single smoker obtained a place on the team.

### LUNG CAPACITY NINE PER CENT. LESS

In tests of lung capacity, where the effects of smoking appear almost wholly isolated from other factors, the smokers, making due allowance for differences in age and weight, had a lung capacity 9.4 per cent. less than the non-smokers, a serious handicap to a man wishing to be a first-class player.

### SMOKING ALWAYS ASSOCIATED WITH LOW SCHOLARSHIP

In scholarship, as in all previous similar studies the smokers were inferior. The average mark obtained by non-smokers was 79.4 per cent., by the smokers 74.5 per cent. Based on equal numbers, the smokers

would furnish 71 per cent. of the lowest marks, the non-smokers only 29 per cent. while the smokers furnished twice as many conditions and failures as the non-smokers.

To the boy who wants to succeed in either athletics or scholarship the conclusions of Dr. Pack are important:

"1. Only half as many smokers as non-smokers are successful in the try-outs for foot-ball squads.

"2. In the case of able-bodied men smoking is associated with loss in lung capacity of practically 10 per cent.

"3. Smoking is invariably associated with low scholarship."



### Shojo-Hi—A Story of Japan

BY REV. GARRETT HONDELINK

Reprinted by request

**T**HE Japanese have a certain cloth called shojo-hi. It is made of wool and dyed red. It is said concerning this cloth that the genuine is dyed with the blood of Shojo found in the China sea. Now these Shojo, just like men, are able to talk very well, and because they are wise and clever, know beforehand all about the way in which men try to catch them. Consequently they are in the habit of hiding away down at the bottom of the sea. Those who have caught them say it is almost impossible to get the better of them in any way. However, men's intelligence is something wonderful, and they are well aware that the Shojo are very fond of sake (Japanese beer). These Shojo catchers know also that, if these animals have but a smell of the sake, they will be sure to come up from the bottom of the sea. Accordingly they put some sake into large jars, and with dippers beside these arrange them in rows in the meadows on the shore. Then they take the grass growing around, and, without cutting it off, tie it, and make a lot of it into the shape of shoes and leave them on the shore. These Shojo catchers hide themselves some distance away and watch for the coming of the Shojo. Thereupon, it is said, the odor of the sake seems to enter and permeate the very bottom of the sea.

The Shojo snuff up this odor, and one will turn to his companion and say: "Sansuke Shojo! Isn't there some kind of pleasant odor here? Surely this must be sake! Come, let us go up out of the sea."

### ONLY A TRAP

To this, it is said, Sansuke will reply: "No! no! We must not recklessly go up



out of the sea! It is only a trap of theirs to get us to drink it so that we will get drunk, and then they will beat us to death."

Then another Shojo replies: "It is all right to go up, provided we do not drink any of the sake. It is much better to go there and to get the smell of the sake than to be here and to smell this obnoxious seaweed."

Then all the Shojo exclaim: "Why of course that is true. There surely can't be any danger in merely smelling of it. Come, everybody come!"

So saying, they all leave the water on tip-toe, and go up to the sake jar. But this is far different from merely smelling it at the bottom of the sea. Soon all exclaim: "What a fine odor this is! But, somehow or other, I can't endure this!"

Continuously snuffing it up, they keep loitering around the jars until finally one will say: "Why, this is only smelling it! I can't possibly stand this! Suppose we take one dipperful apiece."

But to this another Shojo replies: "No! no! We must not do so dangerous a thing! All Shojo that have been caught before this have likewise snatched up those dippers, and just swallowed the sake down. Then they got drunk, and finally were killed."

The other Shojo assent to this, and say: "That is just the case. It would be very dangerous to drink any sake with those dippers, but simply to dip in our fingers and to lick them off would be quite safe. Come, let us do so."

Then they all put in their fingers, and lick off the sake. But this, again, is a very different thing from simply smelling the sake.

The Shojo then walk round and round while smacking their lips, and soon one will say to another: "Really, simply to keep on licking sake like this is not enough for me. Though we should drink some with the dippers, if only we do not fill up on sake, we need have no fear that we shall get drunk." All respond: "That's so! That's right!"

And then they all take up the dippers, and drink a little apiece. Soon one will be heard to say: "Unless one fills up on sake, and gets real drunk there is really no use in drinking sake. Besides, it is hardly the correct thing to say that the Shojo who hitherto were killed and had their blood pressed out met such a fate simply because they were drunk. Why, just look down at your feet. They have made ever so many shoes without even cutting off the grass. The former Shojo put on such shoes, and they danced needless jigs, and then tumbled over

and were caught and killed. It cannot be dangerous simply to get drunk."

Again the others reply and say: "Why, surely that's so. Though we do get drunk, if only we do not put on those shoes, we need have no fear that we shall be killed. And so let us drink until we are dead drunk."

And then, when they had drunk ever so many dipperfuls, and are very drunk, strange to say, though they do not want to, they get an irresistible desire to put on those shoes. And then they all say: "Come, why not put on those shoes? Though we do pull them on, if only we do not dance and and tumble over, there is no danger. Let's simply sing a song."

Then they put on the shoes; they sing, beating time with their hands, and, strange to say, get the desire to beat time with their feet also. And then one will say: "What do you say to beating time with our feet also, but being careful not to tumble over?"

All then exclaim: "That's the idea! Let's do it, but be careful not to tumble over."

They beat time with their feet; they finally tumble over, are then captured and killed, and their blood is used to dye the sho-jo-hi.

God keep us from taking the first step in yielding to any temptation.—*Christian Endeavor World*.



#### TOBACCO SOLD BY LIQUOR DEALERS

**I**N THE November number of the JOURNAL the general statement was made by one writer that but few saloon-keepers have cigarettes for sale and that they are opposed to their use on the ground that they prevent the sale of liquor. It should have been noted in connection with the article that this statement is of local application only as very many saloons do sell tobacco in its various forms. The use of cigarets, also is commonly believed to pave the way in very many cases to the drink habit.



#### LINCOLN'S RULES FOR LIVING

**D**O NOT worry, eat, three square meals a day, say your prayers, be courteous to your creditors, keep your digestion good, steer clear of biliousness, exercise, go slow and go easy. Maybe there are other things that your special case requires to make you happy, but, my friend, these, I reckon, will give you a good lift.—*Abraham Lincoln*.

# COLLEGE FOOT-BALL TRY-OUTS AND SCHOLARSHIP

—IN—

## Non-Smokers and Smokers



### I. PERCENTAGE SUCCESSFUL IN MAKING FIRST FOOT-BALL TEAMS.

Non-Smokers, 66.8%.



Smokers, 33.3%.



### II. LUNG CAPACITY.

Non-Smokers.



Smokers, 9.4% less than Non-Smokers.

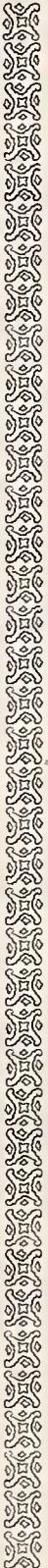


### III. SCHOLARSHIP—AVERAGE RANK.

Non-Smokers, 79.4%.



Smokers, 74.5%.



Smokers furnished twice as many conditions and failures as non-smokers  
Athletic statistics were furnished by 6 colleges and universities.  
Scholarship statistics were supplied by 12 colleges and universities.  
Reported by Dr. Frederick J. Pack, university of Utah  
—*Popular Science Monthly*, Oct. 1912



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# SCIENTIFIC TEMPERANCE JOURNAL

— *Continuing the* —  
SCHOOL PHYSIOLOGY JOURNAL

Propaganda is rarely productive of helpful and permanent reforms unless it relies on indisputable scientific facts and makes a rational appeal to the masses.—*Journal of the American Medical Association.*

*Published at—*  
BOSTON, MASS.

JANUARY, 1913





Practical Search—Further Questions

Answers Found in this Number of the JOURNAL may be used as topics for discussion in higher grades of public schools, Sunday Schools, Men's Clubs or general meetings. Additional references given if desired if ten cents is sent to cover expense, for each topic on which more material is sought.

What danger is there in the use of alcohol to painters and other lead-workers? P. 50.

What evidence is there that not all physicians want beer sold in the American army? P. 57.

How does intemperance in general affect a workman member of a trade benefit society if he is sick or injured? P. 53-5.

What attention was given to the subject of alcohol at the International Hygiene Congress? P. 58. Also Oct. Journal, p. 17.

What was the result of a young man's one careless act? P. 51.

What is the extent and danger of feeble-mindedness in the United States? P. 52, 53. Also Nov. Journal, p. 27.

What did the Pearson study show as to the relative condition of the children of heavy drinkers and of moderate drinkers? P. 50 and 60.

The Taboo on Moderate Drinking

THE use of alcohol is receiving some hard knocks these days. A prominent railway system, not contented with the general rule heretofore in force on railways forbidding employees to drink while on duty, now forbids employees to indulge at all in drinking out of employment hours, or in any other conduct which will impair their health or make them less alert and less capable while on duty. The owner of one of the nation's pets—a prominent baseball team—announced that moderation in drinking is not sufficient; the players on his team must leave alcohol entirely alone and abandon cigarets. The justification for such rules may be found not only in the difficulty of being moderate in indulgence, but also in the cumulative and after-effects of dissipation. The world is moving; the old fetish of "personal liberty" at whatever cost of danger to the public at large seems to be losing its power. The time may come when every man to whom the life and safety of others are entrusted may be expected or even required to be as abstemious as the ball-players and railway employees just mentioned.—*Jour. Amer. Med. Assn.*, Nov. 2, 1912.

Scientific Temperance Journal

Founded by Mary H. Hunt

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# Scientific Temperance Journal

Vol. XXII

BOSTON, JANUARY, 1913

No. 5

**W**E DO not sniff at the law of gravitation, why, then, should we question the immutability of this moral law? Why should we hope to evade it? Men know that punishment follows wrongdoing as shadows fall away from that which hides the sun. And yet . . . we seem to think that God is an idle dreamer whose laws will not stand in this hard world of facts.—William Allen White.

\*\*\*\*\*

## Can Inheritance Be Modified?

BY E. L. TRANSEAU

**T**HE study of eugenics now moving to the center of the stage of current thought is bringing new interest to the question, Can acquired characteristics be inherited? Weismann in Germany and Sir Francis Galton in England have taught that no characteristic acquired after the beginning of the embryonic stage of an individual life can be handed down to the descendants.

The basis of this teaching is that every living being above the one-celled plants and animals is composed of two groups of cells; the *body* cells, which develop in various forms for specialized purposes from the single, fertilized germ-cell in which the individual life began; and the *germ* cells which multiply but do not change their qualities as they pass from one generation to the next. The latter contain just what the two parent cells contributed and nothing more.

Weismann was thought to have demonstrated this theory very conclusively when after cutting off the tails of rats for twenty generations, the twenty-first generation was born with tails as long as the first. The operation affected the body cells, but not the germ cells which carried the material that decided the length of the tail. Weismann afterward admitted that influences might modify the germ cells while in the body of the parents in such a way as to show in their young and this has been demonstrated by later investigators.

### DIFFERENCE THAT MAY MODIFY HEREDITABLE TRAITS.

Sumner, another German, was able to produce a race of mice with tails shorter than the stock from which they came. He placed young mice in a warm room and others of the same brood in a cold room, and from the latter proceeded a strain of mice with shorter tails than the descendants of the young mice brought up in the warmth. The temperature apparently affected the germ cells in the immature bodies of the young mice.

Tower, in this country, has been able to change the hereditary markings on the wings of potato beetles by subjecting the parents to cold and dampness before the parental germ cells had matured. The change in the wing pattern of the descendants of these beetles has been transmitted through subsequent generations.

Similar changes in hereditary characteristics have been produced in the plant world by Bordage in France who planted peach trees in a warm climate where they acquired an almost evergreen habit of retaining their leaves, instead of dropping them as they had for previous generations. Seedlings from these trees when planted in a colder climate retained the tendency to the evergreen habit, another illustration of temperature modifying parental germ cells.

MacDougal, in America, produced changes in the germ cells of the evening primrose by injecting a chemical into the immature ovaries. The seeds that ripened from these chemically treated germ cells produced new plants which in some instances departed widely from the parent type.

All these instances of induced hereditary departures are cited by Prof. J. G. Adami, a pathologist of world-wide reputation, connected with McGill University, Montreal, in an address to the Canadian Medical Society, published in the *London Lancet*, November 2, 1912.

### THE GALTON LABORATORY'S MISLEADING COMPARISON.

Professor Adami used these and other illustrations in substantiation of the age-old observation that the sins of the parents against the body or, at least, a very important series of such sins, are visited upon the children even to the third and fourth generation, and in opposition to the teaching of the Galton Eugenics Laboratory, which, under the direction of Karl Pearson endeavors to maintain that the conduct or acquired habits of parents before em-



bryonic development begins can not affect the physical or mental characteristic of the child.

This question of heredity is now brought to the front anew by an article in the January *American* which reports that Karl Pearson has proved that alcoholism in the parent has practically no effect upon the mental and physical characteristics of the children.

Readers of the JOURNAL will remember that when the Elderton-Pearson report was first published, two years or more ago, it was shown to contain within its own pages the refutation of its claim. It compared, not "drunkards and teetotalers," as the writer in the *American* states, but moderate drinkers with immoderate drinkers.

In its own account of the data used, the report states that the abstaining families were so few (18) that they could not be considered in a class by themselves, but were grouped with a class (275) called "sober" because policemen, employers, and social workers said they seemed not to be drinking enough to do themselves or their homes any apparent harm. These so-called "sober" people were re-named "non-alcoholic" and used for comparison with the heavier drinkers who were called "alcoholic." (See page 60.)

#### UPSETTING THE FOUNDATIONS OF THE GALTON THEORY.

Dr. Adami, however, strikes at the foundation of the theory which Karl Pearson endeavors to support by this misleading comparison. He shows that it is not only possible for parental modes of life to graft persistent changes upon the stock, but that it has been done, and that it is a matter of functional change, of chemical and physical activity, which is not capable of investigation by mere comparisons of form and stature.

Besides the instances in the plant and animal world already noted, Professor Adami traces influences that have affected human heredity, among others, the influences of lead poisoning and of alcohol. To quote his own words:

"We have long observed that intoxicants affecting the body of the parent are liable also to affect the germ cells. . . .

"Take Constantine Paul's figures collected in the fifties. Of 32 pregnancies in which the husband alone was exposed to lead in the course of his work, there resulted 12 abortions, and of the 20 children

born alive, 8 did not survive the first year, 4 died during the second year, 5 during the third. The 32 pregnancies yielded only 3 children living beyond the third year. What can this mean other than that the lead had influenced the germ cells of the fathers?

"Paul, Roque, Sir Thomas Oliver, and other investigators have called attention to the great frequency of epilepsy, idiocy, and imbecility in the children of workers in lead, and it is well established that such feeble-mindedness, where not of sufficiently high grade to cause barrenness, is passed down to later generations.

"These, it may be said, are rare conditions. How about the commonest of all intoxication, the alcoholic? You will know, perhaps, that there is waging at the present time an active discussion upon this subject; that Karl Pearson, for instance, the notable statistician and Galtonian professor of eugenics in the University of London, has compiled some remarkable statistics to show that the children of alcoholics in Edinburgh are, if anything, superior in capacity to those of abstainers. [As shown elsewhere these were not abstainers.—Ed.] Auld Reekie, we admit, is a great city, and its inhabitants are popularly said to consume much alcohol, but this has been a little too much to swallow. . . .

"The subject is so complicated that it is difficult to arrive at a clear comprehension of the case. The home misery and poverty, for example, brought about by alcoholism place the offspring at a disadvantage from the very onset. If the mother be an alcoholic, then the child, nourished by the maternal blood, is liable to malnutrition and to slow pre-natal intoxication. When, however, we come to compare the family statistics for confirmed alcoholics and for the ordinary temperate population, there can be no doubt but that alcohol is responsible for an appalling amount of early death. The vitality of the offspring is gravely affected, and, for myself, from families of alcoholics observed by me, I can not but feel that the children of confirmed drunkards show an increased susceptibility to the action of relatively small amounts of alcohol.

#### WHAT EXACT EXPERIMENTATION SHOWS

"It is, however, by experiment in which we can cut out all complicating factors that we gain clear proof of the deleterious action of alcohol upon the germ cells, and so upon the next generation."

Professor Adami then gives in summary

the results of the Stockard experiments (published in the December JOURNAL):

"There could be no clearer and more positive evidence afforded of the effects of alcohol upon the next generation, and we have analogous data from human families which can only be interpreted in the same sense."

"I have proved to you," Dr. Adami continues, "that the essential germ plasm which conveys the heritable characters from generation to generation is not inert and incapable of being influenced, but on the contrary, is susceptible to physical and chemical agents affecting the body and circulating in the blood; that intoxicants and the poisons of infectious disease have a deleterious effect upon the offspring, that they are apt to cause relative infertility, still-births, monstrosities, and imperfect development, lower vitality with tendency to death during infancy, instability and imperfect development of the nervous system showing itself in convulsions, epilepsy, imbecility, and insanity; also that with some intoxications the offspring are rendered more susceptible to the action of the particular agent which had poisoned one or the other parent. . . ."

Not the least important part of Professor Adami's address just now is his conclusion, because of the wide publicity given to Professor Pearson's teaching by the *American*

article with its still further exaggerations:

"When a false scientific theory has been disseminated, and is being popularized and applied wrongly to the hurt of the future generations, it is the physician's right—nay, it is his duty—to call a halt and expose the truth. When it is being taught that parents may subject themselves to intoxications and infections, and that their offspring, in their bodies and in their health, pay no penalty—that the race does not directly suffer from the follies of the individuals—that it is a perfectly sound policy for this young country to welcome as citizens those of degraded or depraved parentage, then I hold that it is the duty of the physician to tell the truth as he knows it and to express in clear, unveiled language the basis of his belief. I have brought forward these matters tonight not on moral grounds, not for the soul's salvation of any person here present—though I would say, let him that readeth understand and apply what I have said—but because with all who have the interest of this great country at heart I want it to be realized that clean living makes the great nation; that if the parents eat sour grapes, the children's teeth, aye and much more than their teeth, are liable to be set on edge; that evil living must tell upon the race even unto the third and fourth generation."



### One Young Man's Wild Oats

**I**N the early days of the American Revolution, there was a young man of New Jersey behind whom were four generations of ancestors of honor and respectability, of good English blood. Left fatherless at fifteen, the youth, Martin Kallikak (this name fictitious) grew to his majority without the needed parental guidance at this critical age, joined the militia, and during his service met at one of the country taverns a feeble-minded girl who became the mother of his oldest but illegitimate and feeble-minded son. The mother gave the boy the father's full name, and "thus was handed down to posterity the father's name and the mother's mental [in] capacity." Two or three years later, the young man married a woman of family equal to his own; he accumulated property, and left large farms to most of his children. His descendants by this line have been respectable, honorable, prosperous men and women, frequently allied by marriage to

families conspicuous in the state and nation in history, in education, in the professions, and in mercantile pursuits.

Six generations of the two families springing from the same father but from different mothers have lived their lives "in practically the same region and in the same environment except in so far as they themselves, because of their different characters, changed that environment."

From the feeble-minded son of the feeble-minded girl have come 483 descendants. Of these, 143 are known to have been feeble-minded; only 46 have been normal. The rest are unknown or doubtful. Among the 483 descendants, 36 have been illegitimate; 33 immoral, mostly prostitutes; 24 confirmed alcoholics; 3 epileptics; 3 were criminals; 8 kept houses of ill-fame; 82 died in infancy.

From the marriage of the young man to a normal wife, who had at least seven children, has come about the same number of



descendants, 496. All were or are normal. Three were found who were somewhat degenerate, but they were not defective, two being alcoholic and one of loose morals. There were no feeble-minded, no illegitimate, no immoral women, no epileptics, no criminals. Only 15 children died in infancy.

Such is, in part the story of "The Kallikak Family"\* as described by Dr. Henry H. Goddard of the Vineland, N. J., Training School for the Feeble-minded.

#### THE PERSISTENCE OF DEFECT

The appalling feature of the record of the bad family line is the persistence of feeble-mindedness, the original defect not only being perpetuated directly but probably intensified by marriage in the successive generations into families of a similar type. It is believed that "no amount of education or of good environment can change a feeble-minded individual into a normal one," although there were four children of this defective family line, known to have been adopted by good families, who were apparently normal or, at least, did not show signs of feeble-mindedness to untrained observers. Two of these children however, had a normal mother from whom some normal children were to be expected. On the other hand, two other children carefully trained in good families proved to be feeble-minded, so that in their case environment apparently produced no mental benefit.

#### THE FEEBLE-MINDED SOCIAL BURDEN

It is this high-grade type of feeble-mindedness illustrated in part by the members of this family that constitutes one of its great social dangers. Physically, there are some attractive men and women among them. Mentally, this class is unable to progress in education, gains nothing in school of practical value, leaves at the earliest moment the law will allow and then inevitably becomes a burden on society, either through lack of efficiency, or, failing to make a living in an honest way, may tend to become criminals, though in the case of the Kallikak family criminality was not its special weakness. "In regard to criminality," says Dr. Goddard, "we have enough studies to make us certain that at least 25 per cent. of this class is feeble-minded. An examination of 56 girls from a Massachusetts reformatory, but out on probation, showed that 52 of them were distinctly feeble-minded."

The feeble-minded girl at large is the child in intellect, without self-control, but

with the instincts and appetites of maturity; and she therefore readily becomes the victim of evil-minded men and women, and perpetuates and multiplies her kind.

#### ALCOHOLISM AS CAUSE OR EFFECT

It is in this class of people, Dr. Goddard believes, that alcoholism most readily appears, and to certain extent it may be an expression of an existing defect and that, therefore, one way to reduce drunkenness is first to determine the mentally defective people and save them from the environment that would lead them into the alcohol habit.

But even granting that alcoholism may in some cases be the expression of defectiveness, the question remains unanswered, *What started the defect?* With this the present study of the Kallikak family does not deal. Here were six generations of feeble-mindedness, from a single feeble-minded girl. What caused her feeble-mindedness? That question is unanswered, and probably at this late day never can be answered. It may not be without significance that the young man who helped perpetuate the defect met the girl in one of the taverns which were the drinking places of the eighteenth century, and that in both lines of his descendants there was an appetite for alcoholic liquors, although it led to more conspicuous and extreme results in the defective than in the normal line.

Yet there are numerous physicians who agree with the recent statement of Dr. John Punton of Kansas City, that among the factors which may cause feeble-mindedness, alcoholic heredity is one of the three most important.

Here and there, too, is being gathered definite evidence in human families, showing that defects do appear as the result of parental alcoholic indulgence. One case of this kind was mentioned in the December JOURNAL. Animal experiments where conditions can be perfectly controlled and where several generations can be studied in a comparatively short time have shown both physical and nervous disabilities in the young of alcoholic parents. We must not be too hasty in concluding that alcoholism is chiefly the expression of existing defect until the original causes of defect have been carefully studied.

#### WHAT IS TO BE DONE?

The problem, Dr. Goddard maintains, is two-fold: There is, first, the difficulty of knowing who are the feeble-minded people, since many of them would not be recognized as such by the untrained observer. They are pitied and supported by the community.



The second difficulty lies in the question of how to take care of them. Left to themselves they are simply multiplying the problem for each generation. Segregation and colonization, Dr. Goddard believes, may be the ultimate solution. Such colonies need not necessarily impose a much heavier burden on the tax-payer since they would largely take the place of our present almshouses and prisons, and would greatly decrease the number in insane hospitals. They would save an annual loss in property and life due to the action of these irresponsible people sufficient to nearly, or quite, offset the expense of the new plants. The children, if early selected and carefully trained, would become more or less self-supporting in their institutions. In addition to this, the number would be reduced in a single generation from 300,000 (the estimated

number in the United States) to at least 100,000—and probably even lower, as at least 65 per cent. of cases are hereditary. Here again of course, it becomes necessary to ascertain the cause of the remainder as until these causes are removed or controlled there will be a constant though smaller production of these defectives.

The serious lesson of it all is the lesson of the moment of wild oats' sowing. "It is only after the lapse of six generations," says the author, "that we are able to look back, count up and see the havoc that was wrought by that one thoughtless act of a young man. Now that the facts are known, let the lesson be learned; let it be impressed upon our young men of good family that they dare not step aside for even a moment."



FEDERATION'S EXHIBIT, BALTIMORE AND WASHINGTON. (See p. 59)  
Showing Exhibits of Charts and Models.

# What American Trade Benefit Societies Do About Drink

BY CORA FRANCES STODDARD

THE sickness benefit societies organized among American trades practically all place some embargo upon drinking. Apparently none of them require abstinence unless it be the Brotherhood of Locomotive Engineers, but the fact that intemperance may disqualify one from receiving benefits should in a measure tend to greater sobriety. It gives the thoughtful

physician, also, a strong argument for advising sobriety in patients who are members of such societies.

SELF-PROTECTION AGAINST INTEMPERANCE  
 "As a matter of protection," says the United States Commissioner of Labor,\* "practically all the national labor unions paying sick benefits provide that if illness is caused by intemperance, debauchery or

\*23d Annual Report, 1908.



other immoral conduct, members forfeit their right to benefits, and the very presence among the rules of disqualification through intemperance should be a standing reminder of its peril. It shows, too, that while the employers have recognized the effect of drink in efficiency, the workman sees a part—as yet only a part—of the cost to him in disability.

Among the organizations having this rule in these or similar words are the Iron Moulders' Union, the International Piano and Organ Makers' Union of America, the United States Association of Journeymen Plumbers, Gas-Fitters and Steam-Fitters, the Cigar-Makers' International Union of America, the Tobacco Workers' International Union, the Journeymen Barbers' International Union of America, and the United Brotherhood of Carpenters and Joiners. The Machine Textile Printers' Benefit Association has only the requirement as regards intemperance.

Intemperance and immoral conduct are the two disqualifications for benefits for members of the Marine Firemen, Oilers and Water-Tenders' Association of the Great Lakes, the Amalgamated Wood-Workers' Union, and the Railway Clerks' International Protective Association.

The Boot and Shoe Workers' Union takes further precaution by forbidding members to visit saloons while in receipt of sick benefits.

The Amalgamated Society of Carpenters and Joiners does not intend evidently to take any chances, for members are solemnly warned that while in receipt of sick benefits they must not become intoxicated.

#### DISCRIMINATION AGAINST THE USE OF LIQUOR.

The Amalgamated Glass Workers' Association goes a bit further in this direction, to prevent its money from going into intoxicants, for it requires "members receiving permanent disability payments to refrain from the use of intoxicants."

Sickness or disability due merely to the use of alcoholic beverages or to immoral conduct forfeits the right to benefit in the case of members of the United Brotherhood of Leather Workers on Horse Goods which thus draws the line a little closer than the majority of associations which make *intemperance* the cause of forfeiture.

Unemployment benefits are affected and a penalty imposed by drunkenness as well as sick benefits in the Amalgamated Society of Engineers, which provides that "Any member losing his employment through

neglect of work, drunkenness or disorderly conduct, shall not be entitled to unemployment benefits until he has again been employed eight consecutive weeks at the ordinary wages of the shop or district he may be working in."

The Lake Seamen's Union takes away the right to accident benefit if accident occurs while the member is under the influence of liquor. Similarly, the Railway Mail Association gives no benefits when the accident is caused by intemperance.

#### ASSOCIATION OF DRINK WITH OTHER DANGEROUS CONDITIONS

The dangerous element in the use of alcohol is indicated by the Association of Street and Electric Railway Employees of America. Here, rights are forfeited when disability is caused by negligence, through use of intoxicants or if it occurs while on duty as militia men or policemen.

A curious, significant, and almost amusing combination of dangers, appears in the rules of the Switchmen's Union of North America, especially when the occupation is considered, as members lose their rights to benefits "if disability results from balloon ascension, bell-diving, working in powder-mills or alcoholism."

The United States Letter Carriers' Association puts a premium on sobriety and self-respecting conduct by refusing aid in all cases where the disability is due to intemperance, suicidal mania, venereal disease, the use of drugs, or where the disability is prolonged by immoral and vicious conduct.

#### A HANDICAP IN OLD AGE

Old age may have its deprivation for the drinking Railroad Employees for no person "addicted to the use of malt or spirituous liquors will be admitted under any circumstances" to the Home for Aged and Disabled Railroad Employees of America.

#### WHERE ABSTINENCE IS REQUIRED

Apparently the most stringent of the organizations, as already noted, is the International Brotherhood of Locomotive Engineers which "does not admit a man to membership unless he is of good moral character and temperate habits."

Warren S. Stone, Grand Chief of the Brotherhood, writing to the JOURNAL, April, 1911, declared that "no man can drink even off duty, should it become known to the members of the organization, without being expelled from the order. Ten years before any of the railroad companies required this we had these laws for-

bidding the use of intoxicating liquors in our constitution and by-laws."

#### THE GENERAL BENEFIT SOCIETIES

According to the United States Commissioner of Labor, there are fifty general Railroad Relief Funds covering thirty-seven railroad systems. Thirty-six of these are insurance funds to which the employers contribute all or a part of the revenue. The remaining fourteen are pension systems maintained entirely by the employing companies.

Here also "benefits are forfeited when a disability is caused or prolonged by carelessness, intemperance, immorality or immoral conduct."

Beside these national trade benefit societies, there is a large number of local benefit organizations placing similar restrictions on disabilities resulting from intemperance or immorality.

The same is true of the more than four hundred establishment benefit funds which are generally limited to employees of local industries. "Nearly all of these provide that temporary disability benefits shall not be paid when the disability is caused or in some cases is aggravated by intemperance or immorality."

#### THE WEAKNESS AND THE OPPORTUNITY

It is evident that in all these organizations there is discretionary latitude on the part of the attending physician and the committee having the benefit fund in charge as to when the use of alcoholic drinks becomes "intemperance" or a disqualifying

factor, and this may tend to lessen the force of the restriction.

These trade benefit societies have in their records an opportunity which the German societies are using, of studying carefully the comparative amount and duration of disability from sickness and accidents among drinking and non-drinking members. The German, Australian and British experiences indicate that the abstaining members of the American organization may be having to pay a higher rate than they should for their own protection because of the extra expense imposed by the drinking members, especially if the latter do not reach that degree of "intemperance" that would debar them from benefits. There is a field for information here which no one can work so advantageously as the trade societies themselves.

#### EDUCATION SELF DEFENSE AGAINST DRINK

The fact that no such study has apparently been made and that intemperance alone is in general the criterion for disqualification through drink, shows the need of a wider dissemination of the facts as to the effects of alcohol below the point of "intemperance" among that part of the public which is allied with the trade organizations; so that in intelligent self-defense these millions of men may better protect their health and safety, and pocketbooks from the burden which drink imposes through the disease and accidents which may befall themselves or the fellow-members of their organizations.

### The Keynote of the Alcohol Reform\*

BY CORA FRANCES STODDARD

Corresponding Secretary of the Scientific Temperance Federation

"**P**ROGRESS marches," said Victor Hugo, "it makes the great celestial and human journey toward the celestial and divine; it has its halts where it rallies the straying flock; it has its stations where it meditates; it has its nights when it sleeps; and it is one of the poignant anxieties of the thinker to see the shadow on the human soul, and to feel in the darkness sleeping progress without being able to awaken it. But the man who despairs is wrong; progress infallibly re-awakens; it moves even when sleeping, for it has grown. When we see it upright again it is taller."

Something of this one feels in watching the slow in-stealing of the tide of conviction that alcohol is to be fought, the saloon to be overthrown, because the alcohol which

the saloon has to sell is a destroyer of human lives of infinite worth. As year by year new bits of medical evidence reveal deeper and more far-reaching injury by alcohol to the human race, the sense of the ever-mounting misery and waste revealed would be, indeed, almost overwhelming were it not for the yearly increasing evidences, on the other hand, that the truth about alcohol is gripping intelligence and conviction, impelling to action, and that if progress seems to have at times "its halts", the truth, nevertheless, is quietly growing in influence and power, rallying new forces for greater victories. It is doubtful, for instance, whether ten years ago a great daily paper would have committed itself editorially to a paragraph like

\*Annual Report of the Scientific Temperance Federation.



the following taken from an editorial on drink and industrial accidents quoting evidence brought out at the International Hygiene Congress by Dr. W. F. Boos of the Federation's publication committee:

"There is no doubt that the regular use of alcohol even in moderate quantities gradually undermines the nervous system, the man grows less alert; his senses less acute. The powerful 'pocket nerve' will influence employers to avoid workmen who use alcohol at all in order to diminish the probability of accidents. There is no computation of the beneficent results of such a precautionary measure not alone in the saving of life, limb and property, but in the enormous benefits to the workman and his family." So spoke the *New York Sun* of November 14th, 1912.

The "pocket nerve" begins to feel the effects of the alcohol-injured nerve, and while

the "pocket nerve" does not perhaps typify the highest appeal for action, it is, nevertheless, one of the most influential.

Whether we approach the alcohol question from the moral, economic, or social standpoint, we come, first or last, upon the physical fact as the great underlying fact, and as the good general bends his energies toward seizing the strategic point, and presses his advantage there while not neglecting his other battle lines, it is increasingly apparent that in the battle against alcohol and the saloon we shall succeed only in the measure that we press upon the intelligence and conviction of the people the full truth about the nature and effects of alcoholic drinks. Despite all this has been done, there still remains a 'Chinese wall of ignorance, and because of ignorance, indifference, and both can be overcome only with the truth.



### Publicity Features of the Federation's Work

**M**OST of the lines of work of the Federation in the past have been continued through this year. Beside the regular publication of the Scientific Temperance Journal, articles have been regularly furnished the National Advocate, and stories irregularly to the Youth's Temperance Banner and the Water Lily. Temperance lesson hints, news, and book reviews have been written for the Sunday School Times. Articles on the relation of drink to the workman from the scientific point of view have been published in a few instances in some of the widely read socialist papers, a field that ought to receive much more attention. Special material was prepared for the American Prohibition Year Book, for the 1913 Health Almanac issued by the Virginia State Board of Health, for a hand-book soon to be issued by a Massachusetts local Federation of Men's Church Brotherhoods, for the West Virginia prohibition campaign hand-book and for a leaflet for the same campaign issued by the legislative department of the Independent Order of Good Templars.

During the summer, one of the research specialists of the Bureau of Social Service of the Presbyterian Board of Home Missions spent ten days in the Federation library studying publications not available elsewhere in this country, and others have since been placed at the Bureau's service.

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Several new small charts, reprints of those appearing monthly in the JOURNAL have been published and sold extensively. A six-page folder was prepared containing terse statements of some of the facts represented in the exhibit to meet many requests of visitors to the exhibit for the facts in some form which they could carry away.

A suggestion by the Federation Secretary of organized literature distribution work is under way in one of our Eastern States under the united direction of the Allied Temperance Organizations of the State.

#### THE LECTURE FIELD

During the year, the Secretary, besides the other work carried on, has averaged more than one public address a week with good audiences. These have included district and state Sunday School associations and other state conferences, teachers' meetings, including the Nova Scotia Provincial Teachers' Association, classes at Wellesley and Smith Colleges, conventions and general public meetings, Sunday Schools and grade schools in Massachusetts, Indiana, Illinois, and Nova Scotia. The Public School Association of Worcester arranged for addresses before all the teachers of the city and at each of the four high schools.

Outside of her exhibit work, Miss Wills has given addresses in Massachusetts, Maryland, and Washington, D. C., in the latter city before the superintendent and supervising principals of schools, Central

High School of 700 young men and women, and other schools and Sunday schools.

Dr. E. O. Taylor, during the four months December to March gave eighty-one addresses in Virginia, North Carolina, South Carolina, Florida, Alabama, and Indiana. The Virginia scientific temperance work was done in connection with a legislative campaign to secure the passage by the legislature of an "Enabling Act" providing for the submission of the question of state-wide prohibition to the voters of the state. In addition to the lectures, an appeal was prepared by request of the Woman's Temperance Federation of America addressed to the members of the legislature and the electorate based upon scientific facts. This appeal had wide circulation at first through the "Richmond Virginian," afterward in booklet form in an edition of 10,000 copies which were distributed free to carefully selected voters.

The lectures in South Carolina were given in the interest of a campaign against the passage of a bill by the legislature enabling certain counties which had voted out the Dispensary to resubmit the question to the people expecting thereby to secure a return of that institution. A special article on "The Dispensary" was prepared to meet the situation, and was published in full by several county papers and some state denominational papers.

The lectures in Alabama were mostly delivered in a county campaign against the return of the saloon.

Five lectures were given in colleges to an aggregate of 3000 students.

#### SLIDES AND CHARTS

The educational work done by others through the use of the Federation's slides and charts increases, and this year has literally extended from the Atlantic to the Pacific, and from Canada to the Gulf.

A set of charts rented for the Louisiana

Sunday School Association resulted in the sale of a set for permanent use in Sunday Schools and public schools of that state. In October alone, the Federation charts were at five large state Sunday School Conventions and one district convention of 1000 delegates. An appropriate set was at the Child Welfare Exhibit in Montreal, others were at the annual convention of the Disciples at Louisville, Kentucky, and on the Pacific coast in the hands of the Social Welfare League. During the year they have been also in New Brunswick and Ontario in addition to those owned by the Ontario Dominion Alliance. They were shown also at the Presbyterian General Assembly and a Y. M. C. A. conference at Silver Bay besides being used at a large number of small gatherings.

Federation stereopticon slides have gone to the Island of Jamaica, to Pennsylvania for social school work, to the Pacific coast for use by one of the Presbyterian Temperance Committee Secretaries, to Maine, and other states. Their usefulness is well shown by the published report of a secretary of the American Sunday School Union at work in southwestern Pennsylvania. "Poles, Russians, Swedes, Finns, Slovaks, Magyars, Italians, Greeks, Swiss, Belgians, French, Hollanders, Germans, Scotch, Irish, Welsh, Syrians, Armenians, Hebrews, Chinese, Spaniards—to all these I distribute temperance literature. The stereopticon is my aid in doing temperance work among these foreigners. I use the slides prepared for a scientific basis for my teaching, laying special emphasis on the effect of alcohol on the ability to do hard work, also on the health." The correspondence of the Federation goes on with interested workers in practically every state in the Union and with most of the Canadian provinces from which there is a yearly increasing demand for helps.



## A Campaign For Public Health

WHAT has already been told of the Federation work for 1912 may be regarded as merely the incidental efforts of the year. The year was begun with the definite aim of emphasizing the public health aspects of the alcohol question. To this end a series of articles dealing with different phases of this special matter was early prepared and sent out for publication by the temperance press. But

events soon shaped the year's program in an unforeseen way, though entirely in the direction planned.

#### THE CANTEN CONTROVERSY

The petition signed by physicians asking for restoration of the canteen chiefly on grounds of social health was analyzed by the Federation secretaries and data brought from an extensive study of public docu-

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ments covering twenty years or more showing the fallacies of many of the claims made of ill results following the abolition of the canteen. This analysis was published in the *National Advocate*, reprints were sent by two physician members of the Federation Publication Committee with a personal letter to each of the signers of the beer petition and to members of Congress. Later the same physicians secured the signatures of about 100 well-known physicians to a petition to Congress protesting against the restoration of beer-selling. Reprints of the petition as a Senate Document were sent to the press. "The names attached to the petition", commented the *Congregationalist*, "give it weight."

Articles on the subject growing out of the study of reports and bearing upon communications to medical journals were prepared for and published in the *Army and Navy Register* and the *Journal of the American Medical Association*. An article dealing with the history of liquor selling in the American Army was prepared at the request of the *Internationale Monatsschrift* by Mrs. Transeau and will presently be published in that European Journal.

The courageous work of Colonel Maus from within the army openly protesting against the sale of beer to soldiers for the sake of health and efficiency is, it may be hoped, an indication that in the not too distant future the American soldier may have the encouragement to sobriety which is given in the British army and may not be compelled to go through another period of ever-present inducement to use alcoholic drinks.

#### THE HYGIENIC CONGRESS AND EXHIBIT

By all means the most important work of the year was that done in connection with the International Hygienic Congress held in Washington in September.

When the provisional program of the Congress appeared early in the year, though seemingly every other health topic was included, there were only two references to alcohol—the relation of alcohol to fatigue, and intemperance and morality.

Letters were sent from the Federation to the chairman or secretary of each section calling attention to the importance of including the consideration of alcohol as a factor in public ill-health. As one known direct outcome, Dr. Boos, of the Federation Publication Committee, was invited to prepare a paper on alcohol and industrial accidents. It was on this paper that the

*New York Sun* editorial, already referred to, based its comments on the advantages of requiring sobriety.

European hygienists also noting the omission of adequate reference to alcohol, addressed a formal request to the program committee for fuller treatment of the subject. When the Congress convened there were a number of papers discussing the significance of alcohol as a question of public health.

#### THE EDUCATIONAL OPPORTUNITY OFFERED BY THE EXPOSITION

Early in the Federation's correspondence with the officials of the Congress, an invitation was extended to the Federation to participate in the Hygienic Exposition. It was an opportunity not to be neglected. At Dresden the year before, one of the striking features of the Exposition had been the anti-alcohol exhibit, and while the Federation had not the financial resources to undertake an exhibit as comprehensive as that of Dresden, it was clearly an occasion to be seized to introduce in America in an exposition of such importance the exhibit method of education which has proven so effective in Continental Europe as in other reforms in the United States, and to bring alcohol into its logical place among the enemies of public health.

#### THE PREPARATION OF THE EXHIBIT

Facts were carefully gathered from various sources. European correspondents helped by sending photographs and exhibit handbooks from which data and suggestions of methods of representations were gleaned, though the latter, when used, usually had to be adapted to American needs.

The material finally shown represented the topics of the relation of alcohol to sickness by diseases, age, sex, and occupation, general mortality, infant mortality, insanity, physical and mental efficiency, tuberculosis, accidents, crime, poverty, pauperism, divorce, non-support, and juvenile delinquency, represented by about 100 drawings, diagrams, and pictures, and about 25 models. (See cut page 53.)

The Secretary of the Federation desires to record publicly the obligation which the temperance cause of America owes to her co-workers, the little office force, which, in addition to all the usual work, loyally worked through long summer days and voluntarily, often far into the night to perfect and execute the plans, and held on in courageous persistence when at times the



task seemed almost impossible of accomplishment; to the friends who contributed abundantly of skilled labor in the preparation of the exhibit, without which many of the models at least would have been impossible since the fund available was too small to pay what ordinarily it would have cost to secure such work. Appreciation, too, is due the Presbyterian Temperance Committee and other contributors who provided the funds necessary for the exhibit. These funds were secured quite outside of the regular contributors to the Federation work.

Installed favorably at Washington, under the capable direction of Miss Wills, the exhibit attracted a large number of interested visitors, many of whom, such as state board of health officials, physicians, teachers, and social workers are in a position to extend widely the facts presented, and correspondence indicates that an impetus was given to a more thorough dissemination of the facts about alcohol in many states and through official channels. The critical examination which the data and exhibit plans underwent not only at the hands of the originators but of the Exposition officials, the acceptance of the exhibit, and the award to it of a Diploma of Merit, gave it a stamp of scientific standing which should make it a powerfully useful force in American temperance education.

From Washington, the exhibit was sent to Baltimore and for the five weeks of the Missionary Exposition, "The World in Baltimore", in the City Section, was visited by thousands of persons. Two hundred visitors who stopped to hear explanations were counted in a single hour in the last week. Many visitors returned several times either for further information or to bring other visitors to whom they wished to show some special feature of the exhibit. At least 35,000 persons are believed to have been directly reached through these two expositions.

It is too early yet to announce plans for the future, since they are not completed, but it is evident from those already under consideration, that the exhibit has set in motion new agencies for making known the truth about alcohol, and that in the near future this graphic but attractive presentation of facts will play a large part in scientific temperance education in the United States.

Even if nothing more were to be done with the exhibit, it has already amply justified the work and expenditure which it entailed, but it is only at the beginning of its

usefulness, and the important cities of the country should at once plan to secure and use it to the limit of its wide possibilities.

#### STORE-WINDOW EXHIBITS

Meanwhile, in Massachusetts, the Federation, in co-operation with the Citizenship Department of the Massachusetts Christian Endeavor Union, installed a store-window temperance exhibit during the state Christian Endeavor Convention which was an instant success. Later, another was installed under the direction of the secretary of the Federation in a no-license campaign in one of the cities of eastern Massachusetts. One great value of all this concrete work is the fact that it enables us to "*reach the people where they are.*"



### The Outlook

IN justice it should be said that the work of the Federation for 1912, of which a partial record is given in these pages of the JOURNAL and which is, on the whole, probably the most important of its history, has been done under the handicap of inadequate financial support and, for most of the year, of a severely overworked force. There are but five persons to carry on the correspondence, to edit and mail the JOURNAL, to do all other clerical work including the keeping of the books, to gather, index, and translate and popularize scientific material, to prepare the articles which have been written for outside publications, to do the lecture work outside of that of Dr. Taylor, while this year, to this has been added the planning and preparation of the exhibit and its display, one of the force having been absent for two months or more on this important duty, and through it all has run the unremitting work of a part of the same force to secure the necessary funds.

The total expense for the year's work has been but \$6,902.63. The time has come when there must be a largely increased financial support because of the proportions which the work has assumed, while opportunities are opened to it which can only be met by better financial provision. Hitherto what has been done has been possible only by the genuine sacrifices of a few who can do no more than they are now doing.

The work is of such a nature that it must often be planned long in advance. The exhibit, for instance, had to be planned, in general, eight months before it was actually installed. To meet the present demands for



material, to enlist the educational agencies that need but little encouragement to bring them into line for this kind of work, to continue the work already going on, a definite sum of \$10,000 is needed for the coming year. There should be \$5,000 more for the exhibit alone, to provide for development and reproduction thus multiplying its usefulness. The entire time of one person should be given to this alone; \$15,000 is a modest sum for this work of prevention. Only 100 gifts of \$100 each or 200 of \$50 each would meet the need, and it is earnestly hoped that the plans now under way will meet a hearty and generous response from those to whom a great opportunity spells obligation.

For the opportunity is great. With the minds of the people increasingly responsive to the truth, with the ever-increasing volume of the truth itself, with educational forces outside of distinctively temperance organizations waking to their own responsibilities and opportunities in teaching the truth about alcohol, with the yearly influx of alcohol-using people who do not know the truth and whose drinking customs encourage the liquor traffic both by consumption of liquor and often by vote, it is a time to set ourselves steadfastly to the great work of education with shoulder-to-shoulder co-operation among all educational forces, with as little duplication of effort as possible developing the powers of each in united effort, for whatever else is done or left undone, the educational work is that on which all other work of the liquor problem must be built. Only by doing this, by getting down to the fundamental issue or what alcohol does to human life, physically, mentally, morally, economically, socially, shall we be able to avoid the superficial and trivial which so often stands in the way of progress.

Further, we have a right to ask this co-operation of all forces for human betterment. "It is true," said Judge Popert of Hamburg, recently, "that if the alcohol question were solved there would still remain others to be solved, but it is also true that as things stand today, no other question of social welfare can be taken up with any prospect of securing effective results until the alcohol question is solved."

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"Every breath we draw is helping to mould the customs of the world we live in. What I say is, let's fashion a world fit to control the destinies of your son and mine."

## Pin This to Memory

BY CORA FRANCES STODDARD.

A FALSE deduction dies hard. The JOURNAL more than once has exposed the errors of the conclusions in the Elderton-Pearson Report as to the effects of parental drinking on children which was issued by the Galton Laboratory between two and three years ago. It is necessary to refer to the matter again because in the January number of the *American Magazine* an article rehashes this report and makes some wholly unwarranted claims for it.

The conclusions given out were that there was practically no difference between the children of alcoholic and non-alcoholic parents. This was promptly taken by the general public to mean that there is no difference between children of drinkers and abstainers. The *American* article goes so far as to assert that it was a comparison of families of drunkards and teetotalers. This is wholly untrue. *The Elderton-Pearson report made no comparison whatever of abstaining and non-abstaining families. It compared families of so-called moderate drinkers and heavy drinkers and found little difference in the children of these two classes of drinkers.*

Professor Pearson himself said in the report, page 3, "By 'sober' is not meant total abstinence." Professor Pearson also stated that the number of abstaining families was so small that they were grouped with this class which he called "sober," and which, in reality, was a "moderate-drinking" group. He did not tell how many of these abstaining families there were, but examination of the original reports shows that there were none at all mentioned in the Manchester study, and there were only 18 out of the 781 families studied in Edinburgh, and some of these eighteen had but recently become abstinent.

The *American* article claims that the children studied in the Pearson report "amounted to a liberal random sample of average children in the United Kingdom representing all classes." This again is, at least, decidedly questionable as appears from fuller knowledge of the families. Each of the Manchester families had at least one feeble-minded child, as the families taken for investigation were those to which belonged the feeble-minded children in certain special schools of Manchester. With the well-known heredity of feeble-mindedness this fact in itself is sufficient

to throw doubt on the truth of the statement that the children represented a fair average of all the children of the United Kingdom.

The Edinburgh families, it was discovered by Dr. C. W. Saleeby some time after the Pearson report was published, lived in one of the worst slums of that city (*British Journal of Inebriety*, October, 1912) and while there may have been respectable families among them, residence in such a district would hardly qualify the group to stand as a "liberal random sample of average children" of Great Britain, as claimed by the *American* article. It was the "ghastly facts of this very slum," says Dr. Saleeby, "in which I had myself worked for years as a medical student and maternity physician, which, recorded by Dr. Leslie Mackenzie after the Boer War, led to the study of children in other cities, and finally to the medical inspection of school-children."

Professor Laitinen of Finland, in an investigation of 5000 families, obtained results similar to those of the Pearson study when, like Professor Pearson, he compared the children of heavy and moderate drinkers. But he carried his study farther, and, comparing these children with children of abstainers, he found marked advantages in the abstaining families over both groups of drinking families.

The conclusion which *The American* writer draws from his erroneous statements is that alcoholism "is a symptom of defective stock" rather than a cause, and therefore that "closing the saloons is a feeble and superficial move upon the problem of alcoholism." The conclusion falls, of course, with his erroneous premises, as far as his discussion of it goes.

Even if it is true, as it probably is, that some alcoholism is an expression of defective stock, the question immediately arises, *What caused the defect in the first place?* That parental alcoholism does cause defects in the young appears to be clearly shown by such investigations as those of Dr. Stockard reported in the December *Journal*, and others, where careful comparisons were made between the young of alcoholic and of strictly non-alcoholic parents.

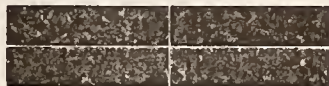
It is to be assumed, of course, that the editors of the *American Magazine* were not aware of the errors in the article when they accepted it for publication, but it is quite time that the *American public* should thoroughly understand that the Pearson investigation affords no information whatever on the comparative condition of the children of drinkers and abstainers. It simply shows that there was little difference between the children of heavy drinkers and moderate drinkers in the particular families studied.

## DEATH-RATES IN PNEUMONIA

ACCORDING TO

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# SCIENTIFIC TEMPERANCE JOURNAL

— *Continuing the* —  
SCHOOL PHYSIOLOGY JOURNAL

## THE QUIET WINTER FIELDS

BY ROBERT BURNS WILSON

Sweet are the winter fields;  
The quiet winter fields of brown and gray,  
And white, and tawny yellow, like the manes  
Of Asiatic lions; lonely plains  
Of pleasing desolation, whence the yields  
Of sumptuous summer have been borne away;  
Long, silent lands—haunts of the wandering air  
Which breathes out, sighing, from the woodlands bare;  
How sad—how sweet, are they!

—*From the Outlook.*

*Published at—*  
BOSTON, MASS.

FEBRUARY, 1913



## Catholic College Men and Drink

**W**HEN the Catholic Total Abstinence Union of Pittsburgh held recently its regular monthly meeting at Duquesne University, the relation of the college to the temperance question was touched by the Very Rev. Father Hehir, C. S. Sp., when in an address of welcome to the delegates he said:

"Your work in uplifting mankind is grand and noble, but difficult, and although our faculty have not been able to take as prominent a part in this work as we wish, still we are in sympathy with you and have done some total abstinence work at our university. Our faculty try to impress on our students the importance of total abstinence to be successful business men and good Catholics.

"The President of the university delivers sermons on total abstinence to our students, and when they graduate they are asked to take the total abstinence pledge for a number of years. We also encourage them to join your societies and remain members of this grand Union after they leave here.

"This work has created a healthy spirit among our students. They are allowed the liberty of the city, and yet the President of this university has not had one case of drunkenness to deal with in the last ten or twelve years. We train our young men to use and not abuse their lives and to do this they must keep away from drink."

Father Beane, President of the Union, in behalf of the Union, thanked Father Hehir for his kind welcome and his address, stating that the words of the President of the University showing the stand taken by it on total abstinence should and would make an impression on the future work of the Union.—*Sacred Heart Review*.

## Alcohol and Infant Mortality

**I**T cannot be too distinctly recognized, as Sir John Simon pointed out, that a high infant mortality rate almost necessarily denotes a prevalence of those causes and conditions which in the long run determine a degeneration of race; and further, that a high death rate of infants is an indication of the existence of evil conditions in the homes of the people—which are, after all, the vitals of the nation. Poverty is not alone responsible, for in many poor communities the infant mortality is low. Housing and external environment alone do not cause it, for under some of the worst external conditions in the world the evil is absent. It is difficult to escape the conclusion that this loss of infant life is in some way intimately related to the social life of

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the people.—*Infant Mortality*, by George Newman, M. D., F. R. S. E.

**D**OCTOR," said the patient, "I believe there's something wrong with my stomach."

"Not a bit of it," replied the doctor. "God made your stomach, and He knows how to make stomachs. There's something wrong with the stuff you put into it, maybe, and with the way you stuff it in and stamp it down; but your stomach is all right.—*Exchange*.

# Scientific Temperance Journal

Vol. XXII

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No. 6

## The Song of the True Laborer

USE me, my God, in Thy great harvest field,  
Which stretcheth far and wide like a wide sea;  
The gatherers are so few I fear the precious yield  
Will suffer loss. Oh, find a place for me.

A place where best the strength I have will tell;  
It may be one the other toilers shun;  
Be it a wide or narrow place, 'tis well,  
So that the work it holds be only done.

—Christina Rossetti



## Causative Factors in Tuberculosis Intensified by Alcohol

BY HERBERT RHODES, M. B., ENG.

WE learn from the tuberculosis expert that among the predisposing causes of tuberculosis invasion are the following: Overcrowding and impure air, physical overwork, mental overstrain, anxiety, under-feeding, improper and unsuitable food, and a certain constitutional lack of resistance to the tubercle bacillus on the part of the tissues. The exciting cause in each case is the tubercle bacillus, whether inhaled or inoculated or, as in the vast majority of cases, swallowed.

As we are told by Naegeli of Zurich that 98 per cent. of people over fourteen years of age have a tuberculous lesion somewhere, we may assume that almost every adult carries within him the exciting cause of tuberculosis, and these small enemies are always at hand ready to attack him when his vitality is lowered, particularly when those special predisposing causes are present.

What are the causes of overcrowding and impure air? They are many, but it becomes at once apparent to those who know anything of the social conditions under which the poorer class lives that alcohol is the chief cause of poverty and overcrowding.

In some foreign countries, especially France, (1) alcohol is looked upon as a food, and there the ill-paid Parisian workman drinks wine and eats a little, instead of eating a good meal and drinking water, and so, although he may drink in the open air, he is lowering his vitality both by the action of the cold air on his skin filled with blood—the result of the physiological action of the alcohol he has taken—and also because he is half starved; and in France we find the connection between alcohol and tuberculosis more generally recognized and more definitely stated than anywhere else.

### POVERTY AND OVERCROWDING DUE TO ALCOHOL

Poverty, as an alcohol-produced condition, seems so self-evident as hardly to need statistical proof.

In Sir Thomas Whittaker's paper on "Drink in Relation to Poverty and Public Health," read before the Oxford Meeting of the British Medical Association in 1904, you will find he says, and gives good reasons for saying, that people do not drink because they are poor. They are poor because they drink, or because those with whom they are connected have drunk or do drink. The experience of those who work in the slums is that as soon as they get any of the people there to be abstainers they move away.

Alderman McDougall inquired into the causes of pauperism in Manchester and interviewed each individual, representing 404 paupers; he found in 50 per cent. of these cases the cause of pauperism was drink. (2)

Poverty and overcrowding favor tuberculosis. Dr. Henschen's figures for Stockholm show that in the flats where the rich live the mortality from tuberculosis is only 5.6 per 10,000 while among the poor it is nine times as high. (3)

Carnelly, Haldane, and Anderson found in Dundee that in houses with four rooms and upwards the mortality from tuberculosis is 32 per 10,000, in those with three rooms it is 55.2, with two rooms it is 64.1, and with one room it is 74.4 per 10,000. (4)

A. Pégurier's statistical inquiry into the ancestry of the 350 phthisical patients attending the anti-tuberculosis dispensary at Nice brings out facts which, I think, help the theories I have ventured to advance. (5) He finds alcoholism of forefathers is more dangerous for descendants than is tuberculosis. The son of an alcoholic parent is more liable to contract tuberculosis than is the son of a phthisical parent who is not an alcoholic. Families where the father was alcoholic showed considerably more tuberculous daughters than sons.

1. Letulle: Cong. g. d. Alcoholismus, Vienna, 1901.

2. Kelyack: "The Drink Problem," 1907.

3. Henschen: London Anti-Alcohol Congress, 1900.

4. Tuberculosis Supplement to Thirty-Fifth An. Rept. of Local Govt. Bd. 1905-6 London.



### EXPERIMENTAL AND PATHOLOGICAL EVIDENCE

There are certain facts also regarding the action of alcohol on the tissues, directly weakening the resistance they are able to offer to Koch's bacillus. Professors Sims Woodhead, Laitinen, Walter Kern, Achard, and others have performed experiments on alcoholized animals, and Laitinen's results especially seem to prove that quite small doses of alcohol render rabbits and guinea pigs more susceptible to tuberculosis infection than normal control animals, in the proportion of 40 per cent. to 20 per cent. Also 65 per cent. of the offspring of alcoholized mother guinea-pigs die when inoculated with tubercle bacilli, whereas only 52 per cent. of the offspring of normal controls die.

Dr. Tatham's often-quoted statistics regarding the mortality from tuberculosis in different callings show that if the mean mortality is represented by 100 the mortality of those classed as brewers is 148, and as barmen 257. The first of these figures seems to me much more significant of the action of alcohol directly than the second. A brewery worker is well fed, well paid, and lives a more or less open air life, while a barman works under the most unhygienic and often unsanitary conditions; he has long hours, often insufficient food, bad bacillus-laden air, and the constant temptation to overcome his feelings of fatigue and discomfort by recourse to the narcotic poison so ready to his hand; and so alcohol causes impure air, overwork, fatigue, and overcrowding, and is shown statistically to produce a very high tuberculous mortality; yet even the brewer, with all his surroundings hygienic and apparently opposed to the tubercle bacillus, has a mortality rate from tuberculosis higher by about 50 per cent. than the normal. Here seemingly is statistical proof that alcohol definitely produces our last predisposing cause of tuberculosis, "a certain constitutional lack of resistance to the tubercle on the part of the tissues."

In order to test what he terms "the mischievous fallacy" that alcohol drinkers are not liable to tuberculosis, Dr. Howship Dickinson examined the post mortem records of St. George's for a period of thirty years. During that time 149 patients engaged in the drink trade died in St. George's Hospital. Of these 61 had tuberculosis of the lungs. Of 149 not concerned with the handling of drink, 44 had tuberculosis of the lung (post mortem records).

The alcohol-dealing patients suffered from tubercle in other parts of the body twice as often as those whose occupations were not concerned with alcohol. Thinking that the close confinement of those engaged in the alcohol trade might explain their greater liability to tuberculosis, Dr. Dickinson classified the cases under the heads of indoor and outdoor employment, and came definitely to the conclusion "that there is no such preponderance of fresh air or want of it in either case as to account for the very decided preponderance of tubercle under drink. . . . We may therefore conclude, and that confidently, that alcohol promotes tubercle, and that not because it begets bacilli, but because it impairs the tissues, and makes them ready to yield to the attacks of the parasites. 'Good store of fertile sherrie, though it cannot supply the seed, manures the soil.'"

Paul Reynier found that after forty years of age, alcohol is responsible for 90 per cent. of all cases of tuberculosis of bones. In children and young persons with surgical tuberculosis there was *always* a family history of alcohol, rarely of tubercle.

To sum up. From 50 to 90 per cent. of poverty is caused by alcoholism. Poverty increases the mortality from tuberculosis nine times. Poverty leads to overcrowding, and overcrowding leads to a directly proportional increase in the mortality from tuberculosis.

Alcohol weakens the resistance which animal tissues offer to the tubercle bacillus, as shown by experiments upon the lower animals, by pathological data in cases of death from definitely alcohol-produced diseases, and lastly, while the mortality from tuberculosis is half as much again as normal in a trade (brewer) where practically the only etiological factor is exceptional opportunities for alcoholic indulgence, in another trade (barman) where alcohol acts not only directly but also indirectly in causing overcrowding, overwork, bad air, overstrain, and continual opportunity for reinfection, the mortality is two and a half times the average.

Having come so far, I think that one may assert with some confidence that it is proved that alcohol exerts a predisposing influence on the causation of tuberculosis both of the lungs and of the bones, and that it is a factor in the distribution of the tubercle bacillus where it is most likely to find a suitable nidus and suitable condition for its growth and welfare.—Abbreviated from an article in *British Jnl. of Inebriety* (Jan., 1913).

## Two Labor Magazines on the Alcohol Question

A CANADIAN brother, says the editor of the *Locomotive Firemen and Enginemen's Magazine* (Dec., 1912), recently sent us a copy of the issue of October last of the *Canadian National Templar*, a publication devoted to the cause of Temperance, specially calling our attention to an article appearing therein entitled "Labor Leaders and Booze," and which was reproduced from the *Winnipeg Voice*, a prominent weekly labor paper and the official organ of the Winnipeg Trade and Labor Council. The article is in part as follows:

"Among the officials of various labor organizations there is too much booze fighting and not enough sober, earnest work.

"It's bad for the movement they represent; it's bad for themselves.

"It leaves them open to suspicion. It gives spies and detectives an opportunity to do all kinds of things.

"What is needed at this juncture of the labor movement is clear heads and the right line of action.

"There is absolutely no room in the labor movement for men who are under the influence of booze all the time they can spare. The sooner the rank and file demand sobriety as one of the qualifications of the men they entrust with their interests the better for all concerned.

"If some of the present 'leaders' of the labor movement will insist on standing still (while an outraged working class demands industrial liberty) and spending their energies in the bar rooms and down the line, then the sooner the rank and file throw them out of their service the better for themselves and all the rest of their class.

"It's not a question of temperance exactly, but of guarding against men who ought to know better than to allow themselves to be chloroformed by the agencies of the enemy."

The concluding paragraph of the article, continues the *Magazine*, contains a declaration to the effect that the Brotherhood of Railway Carmen have been exceptionally fortunate in their selection of general officers free from addiction to the intemperate use of alcoholic beverages, some of them being total abstainers.

We take exception to the foregoing in that it is not sufficiently discriminating. It is entirely too general in its accusation. Regarding those cases, however, to which it is justly applicable, it contains some glaring

truths and points out some real dangers.

It is true that isolated cases of intemperance are to be found among officers of labor unions, but they are the exception and not the rule. This evil does not by any means exist in the labor movement to the extent the foregoing article would indicate.

The officers of the organization named therein have evidently been cited as an exception, when as a matter of fact total abstinence and strict temperance constitute a long established and closely observed rule, not only among the officers but throughout the rank and file of all railroad labor organizations.

In our own brotherhood [Brotherhood of Locomotive Firemen and Enginemen] the great virtue—the great duty of temperance—of total abstinence, is one of the first lessons our members are taught at its altars, and this lesson is impressed upon them by the example of their general officers, who are all men of rigid sobriety—nearly all of them being total abstainers. Our men themselves know how deeply impressive this lesson is and the imposing and solemn conditions under which it is so forcibly impressed upon them, even as candidates entering the order.

If intemperance prevailed among labor officials to the extent that it does among business and professional men, there would indeed be occasion for the alarm expressed by the article we are discussing.

With the proposition that there is no room in the labor movement for the officers who are addicted to the intemperate use of intoxicants we are in hearty accord, and all such who do not "cut it out" should not only be removed from and kept out of office, but should be expelled from their respective organizations, for the danger that the "booze fighter"—be he officer or member—constitutes to the labor movement cannot be overestimated.

About 75 per cent. of the miseries of the world are traceable either directly or indirectly to "booze" and every labor leader should impose upon himself as a qualification for such leadership the inculcation by example and precept of the great virtue of temperance and its blessings, not only from a moral but from an economic standpoint as well.

We can say with justifiable pride and without fear of successful contradiction that if all classes were as free from the



liquor habit as are the railroad men of the present day, there would be little left for temperance workers to do. To convince oneself of this fact it is only necessary to mingle with railroad men at their gather-

ings—to attend some union meeting, for instance, in any part of the country and note the entire absence among them of any desire or tendency to visit saloons or to indulge in the use of intoxicating beverages.

## The Best Way of Promoting Temperance Reform\*

BY SIR ALFRED PEARCE GOULD, K.C.V.O.

**A**LCOHOLISM combines the three curses of war, pestilence, and famine; the evil is today almost, if not quite, as great as ever.

Nor is there any weakening of the evidence that alcoholism is the parent of poverty, disease, crime, and inefficiency. It is sometimes urged that the association of alcoholism with poverty and crime is not that of cause and effect, but that they are the joint effects of other causes. We can understand that dwelling in abject and sordid poverty, dark and overcrowded dwellings, the very poor in our slums may be led to seek some solace in the drinking bars that abound in such neighborhoods.

It is equally true that a low mental and moral development predisposes to crime, lessens the power of self-restraint, and makes a man little able to stand the temptation to drink, and to save himself from the curse of drunkenness. We may grant all this, but there yet stands a mass of evidence to show that alcoholism actually causes a large proportion of poverty, adds enormously to the evil effects of poverty, however caused, predisposes to and adds to the severity of disease—particularly tuberculosis—and is the direct incentive to crime, particularly the more brutal and violent forms of crime.

When we consider the question of Temperance reform, therefore, we are not dealing with one of the minor social problems of our time, but with a condition so wide in its range, so grave in its influence, that it demands the most careful consideration of all the well-wishers of our race, and the most determined efforts of every friend of man.

The housing of the poor cries aloud for improvement, but alcoholism is an evil that is interfering with the life and usefulness, not of the poor alone, but of every class. To lessen its influence would be to benefit the whole community; it is an evil that closely touches every one of us, and every one has his part to play in the war against it.

### EFFECT ON DISEASE

THREE main causes of death are injury, infection, and new growths. As to injury, we know that alcohol increases the liability to it by inducing a lack of proper nerve control and a deterioration of judgment. It does not, of course, increase the mechanical effects of an injury, nor directly convert what would have been a recoverable injury in an abstainer into a fatal injury in a moderate drinker. But if we could exclude alcohol altogether from the life of a community, we should lessen the number of accidents quite materially.

Infective diseases are the most important of the preventible causes of death; they account for one-half of the deaths recorded in our Registrar-General's returns, or about 250,000 a year. It is, of course, a matter of common knowledge that the free consumption of alcohol renders a man an easy prey to infective disease; when the drunkard is attacked by pneumonia or erysipelas, for example, he almost invariably succumbs to it—he has little or no power of resistance.

I am more anxious to point out that we have clear evidence that the protective agents of our bodies are injuriously affected by small dietetic doses of alcohol. Thus the white cells of the blood are only able to destroy bacteria when certain substances called "opsonins" are present in the blood; these "opsonins," or appetizers, are very easily affected, and it has been shown that a glass of port wine will lessen the amount of "opsonin" in the blood by as much as 25 per cent. Recovery from disease and immunity to it occur when certain "immune bodies," formed as the result of the presence of the disease germs, combine with a substance in the blood called the "complement;" the taking of alcohol in small dietetic quantities has been shown to lessen the amount of "complement" in the blood, and thereby to interfere with recovery.

As regards this great group of infective diseases, then, we not only have the evidence of statistics, which shows that the taking of alcohol increases the liability to attack and lessens the prospect of recovery,

\*Extract from Tenth Lees and Raper Memorial Lecture at Norwich, Eng., Oct. 31, 1912. (*Journal pp. 61-6*)

but we know how it does it—by checking the activity of every one of the protecting powers of the body. In this country the most fatal of the infective diseases is tuberculosis, and the influence of alcoholism upon it is very pronounced. A great French physician, who was also a great authority upon this question, M. Brouardel, used to insist that alcoholism has more influence upon the spread of tuberculosis than any other single factor, and quoted figures showing that the deaths from tuberculosis are in direct proportion in communities to the consumption of alcohol. Indeed it is impossible to escape the conclusion that alcohol is no other than the ally of infective disease.

The evidence of the influence of alcohol upon new growths or tumors is not so complete. We do not yet know the exact cause of cancer, nor how our bodies protect themselves against it. But I am able to give you two material facts. In the first place, the experience of the United Kingdom Temperance and General Provident Institution is that death from cancer is more than twice as frequent among the insured abstainers as it is among the insured non-abstainers. It has also been shown that the cancer incidence in men of different occupations varies directly with the habits as regards alcohol of those engaged in such occupations. For example, cancer is twice as frequent among brewers and London publicans as among clergymen. My experience of this disease enables me to tell you that it is more rapid and more distressing among those who take alcohol, and that free consumption of alcohol adds greatly to the rapidity and severity of the disease. The taking of alco-

hol is not the cause of cancer, but it certainly lessens a man's power of resisting the attack of this disease, and renders him an easier prey to it.

#### HOW IT ROBS US OF FOOD

WE MUST not forget that alcohol is all made from potential food. The area of land in this country under barley is nearly as great as that under wheat; over seven million quarters of barley are used for malt in this country every year, and the land that grows this barley for the manufacture of alcohol could grow oats or other crops for the food of our people. Over 200,000 tons of sugar are used here every year to be changed from food into alcohol. We need not burden our minds with these figures, but we do need to fasten our attention on the great fact that alcoholic drinks are in all cases obtained from the fermentation of what would otherwise be used for food. This is done in face of the fact that there is a serious shortage of food in the world. Everywhere there are the underfed, and the proper food supply of the people is now an urgent matter, and threatens to become more and more difficult. And yet we are wasting food by making it into alcohol! And the alcoholic beverages which represent so much spoiled food are so costly that the wage earner who takes his pint of beer for dinner and for supper, even if he limits himself strictly to that, is spending his money more extravagantly on this drink than on any other single item of his daily diet. These are some of the facts about alcohol, and upon them we ground our claim that its use as a beverage should be everywhere curtailed to the fullest possible extent.



#### Education Necessary in Legislative Reform

AS TO legislative reforms, we must remember that the laws of a democracy cannot be wiser or better than the general sense of the community. The majority of the voters in the United Kingdom today are consumers of alcoholic beverages, and if asked would, I believe, be found ignorant of the great facts about the influence of alcohol upon human life, to which I have referred. How can those who are ignorant of the facts legislate in accordance with knowledge?

My contention is that we must not look to legislation as the primary means of securing Temperance reform. Legislation must be secondary in time and in influence

to that change of public feeling of which it will be the expression.

#### MORE LIGHT WANTED

The real question is, How are our fellow-subjects who now think that the consumption of alcoholic beverage is necessary or helpful to human life and activity and a benefit to society to be induced to learn the facts, to change their belief, and to join us in a strenuous and determined attempt to put an end to what we know to be so great and far-reaching an evil.

It will not be accomplished by force, or compulsion, by no party machine, by no wave of enthusiasm. There is only one means of dispelling darkness—letting in the



light. Ignorance can only be successfully combated by knowledge, and self-deception corrected by enlightened self-interest. It is only when the men and women of Great Britain know the truth about alcohol that we can hope to have them freed from the evils they now too cheerfully endure.

But do they not know? Have not the statistics of life assurance and friendly societies been published broadcast? Have not the facts I have briefly referred to, and many others, been freely published and brought within the reach, if not thrust upon the attention, of all the intelligent members of the community? Yes. But that is not enough. Knowledge is of many kinds, and its influence upon conduct varies.

Whenever we are taught by one who has some ulterior object in view beyond the mere imparting of information—to win an adherent to some party, to secure a disciple, to affect a vote—the instruction given is relegated to a secondary place in the recipient's life. The personal influence of the teacher, or the power of association, may assert itself and effect its immediate purpose, but the impelling force of such teaching is slight and transient.

The splendid work of the Bands of Hope and of such educational Temperance organizations as the National Temperance League has been above all praise. But it has been pioneer work, only possible to enthusiasts in the cause, and, like all pioneer work, it finds its consummation only when it becomes absorbed into the general progress of the community. So long as temperance teaching has been something outside of, and added to, the common teaching of the people, given only by a special class of teachers, who are proselytising teetotalers, it gains from the enthusiasm of the missionary, but it loses from the suspicion that attaches to what seems to belong to a party only.

It is only when temperance teaching is a part of the ordinary education of every child, in schools of all social grades, and and is given by the ordinary teacher, that we shall know the power of education in fighting the monster of alcoholism.

We are very far from that state of thing now. With a strange timidity, our educational authorities have at last ruled that those seeking to become elementary school teachers must receive instruction in hygiene, including temperance, but they have shrunk from insisting that they shall use this knowledge when they become teachers, and it is entirely optional whether any

teaching of the kind shall be given to the children in our schools. Surely knowledge can only be essential for a teacher, inasmuch as it is to be given to his pupils.

We must give the authorities no rest until we have hygiene and temperance teaching made compulsory, universal, and thorough for all the children in the land.—*British Alliance News*.



WE KNOW from statistics of French sanatoria for tuberculous children that 25 per cent. of the non-tuberculous parents of the children admitted were alcoholic to a greater or lesser degree. In my service at the Riverside Hospital Sanatorium where, it is true, I do not receive the very elite of patients, but many forced-in cases, not a few picked off the street or from low class lodging houses, I have among my male patients 66 per cent. who acknowledge being addicted to the use of alcohol. Whether they become tuberculous because of alcoholism or alcoholic because of being tuberculous, I am not prepared to say. The belief that tuberculosis can be cured by whisky and prevented by the same beverage is still a prevalent one and needs combating.—S. A. Knopf, M.D., Oration State Med. Society, Ill. *Med. Journal* (1912).



ALCOHOL is universally recognized as the most important factor in predisposing to lead poisoning, though if this be true, the over-susceptibility to lead of women, the comparatively temperate sex, must be even greater than we have supposed. Pieraccini insists that alcohol and lead work together forming a vicious circle, for as alcohol renders a man more susceptible to lead poisoning, so lead poisoning in its turn, makes him more susceptible to alcohol.—Alice Hamilton, M.D., *Jour. Amer. Med. Assn.*, Sept. 7, 1912.



ALCOHOL, as we must iterate and re-iterate, is the precipitating factor in fully 30 per cent. of our male insane. Many persons who take alcoholic beverages in so-called "moderation" are taking enough not only to impair their digestive organs, but also to produce ravages in the brain tissue which can never be repaired and which have for their results lowered intellectual and mental power, and not infrequently permanent mental enfeeblement or insanity itself.—Albert W. Ferris, M. D., *N. Y. State Jour. of Med.*, June, 1912.

## Perils to Child Development

BY W. McADAM ECCLES, M. S., F. R. C. S., Eng.

Surgeon and Demonstrator of Operative Surgery, St. Bartholomew's Hospital, London.

WE know but little as yet of the laws of heredity, but we do know that disease may be impressed upon the child before birth, and that he may carry such an impress in a latent manner for long after birth, the resulting handicap to its welfare in the world only becoming apparent in many instances when some strain is thrown upon it. Then it is that the inherent defect shows its existence and the individual evinces that crave for alcohol which the normal brain might have been able to withstand. It is thus that a vicious circle of the most serious import may be brought into existence. A father or a mother or both parents are given to excessive indulgence in alcoholic beverages. Their offspring are affected, it may be quite insidiously, and they in their turn produce degenerates one degree worse than themselves.

BUT a child of alcoholic parents may escape contamination before birth, only to be caught by the foe very soon after it enters the world. A nursing mother who gives way to drink generally feeds her child with milk which is poor in quality and deficient in quantity. The amount of milk is not increased by alcoholic beverages, and there is no such thing as "nourishing stout of the greatest value to nursing mothers."

Frequently the milk contains a very appreciable amount of the drug which the mother has been imbibing, for alcohol can be readily traced in the mother's milk within twenty minutes of its ingestion into her stomach and it may be detected in it for as long as eight hours after a large dose. Dilute alcohol thus passed into the system of the child invades every part of its being, and has a particularly harmful effect upon the growing cells of its developing brain. It is in this manner possible to pave the way for many degenerative lesions which are manifest in later years. Numerous cases have been reported in which infants at the breast have been the subjects of both acute and chronic alcohol poisoning, the results of which have remained as permanent defects in the individual.

It is on account of these well-known facts that many hospitals in their hints which they issue to mothers on the rearing of infants, lay stress on the recommendation that alcohol should be avoided, a recommendation which is very different from the ordinarily accepted idea in the public mind.

It is not only, however, that the infant may receive alcohol mixed with the natural food derived from its mother, but it is by no means unusual for alcohol to be administered to it apart from maternal milk. It is not an uncommon sight to see quite young children carried into the public-house and there treated to beer or even spirits. The child makes a wry face over its dose, evidence that alcohol is not a fluid appreciated by the untutored palate, a fact that ought to indicate to any but the most ignorant that its proper use is that of a drug rather than a beverage. This administration of alcohol is made, I verily believe, as the result of maternal ignorance in most instances, an ignorance which does not redound to the credit of the educationists of our land.—*Journal of Inebriety*.



## The Waste of the Babies

IN EXAMINING the records for the years 1908 and 1909, we find that there were more than one-eighth of a million deaths of babies under one year of age in about one-half the total population of the United States during each of these years, and about 200,000 deaths of little children under five years.

These figures make the worst epidemics or plagues seem insignificant in comparison and point of numbers, and show only too plainly that our efforts so far to reduce infant and child mortality, although they have been in a measure fruitful in their results, are still inadequate to cope with this great problem and are not effectual or drastic enough to produce the results we ought to obtain.

It is unreasonable to suppose that infants properly born (in other words, having healthy parents), and coming in proper living conditions, by which I mean a healthy environment, should die in infancy or childhood except in cases of unavoidable accident, which constitutes a very small percentage of the number of deaths.

Probably a large percentage of the disease of early infancy (that is, premature birth and congenital debility) is the result of venereal disease, tuberculosis, or alcoholism in the parents . . . Where one or both parents are alcoholic, syphilitic,



tuberculous, or epileptic, the child, as a rule, becomes the victim of the disease; and investigation has shown it to be only too true that "the sins of the fathers are visited upon the children unto the third and fourth generations." Children born from such

parents frequently die an early and miserable death unless kept under constant medical care and treatment, and if they do survive, are often cripples, invalids, or mentally deformed.—*E. Mather Sill, M. D., Va. Med. Semi-Monthly* (June, 1912).



## North Carolina Sets a New Pace

BY W. S. RANKIN, M. D.

[In her December (1912) State Board of Health Bulletin, North Carolina sets a new pace for all her sister states, for that strong Bulletin deals entirely with that great preventable disease, alcoholism, the sickness and mortality rate of which are scarcely exceeded by any disease we know. Based upon such authorities as the Committee of Fifty, Phelps, Horsley and the *Scientific Temperance Journal* and published in a 41-thousand edition, large enough to supply all the schools, it can but do much to enlighten the people of that splendid state. Following is a short section written by the Secretary of the Board who edits the whole.]

FROM a study of unbiased literature like that above mentioned, based upon painstaking and careful scientific experiments and sociological research by those of open minds, one is forced to conclude that the liquor problem is not only a big moral problem and a big economic problem, but also

### A BIG PUBLIC HEALTH PROBLEM.

This will appear from the relative importance of liquor as a contributor to our death rates; it can be shown that [directly or indirectly] the health and life destroying influence from liquor results in 66,000 adult deaths a year in the United States; that one out of every twenty deaths is due to liquor; that one out of every twelve deaths of the adult population is due to liquor; that one out of every ten *male* deaths is due to liquor; and, that one out of every seven and a half adult males is the result of the use of liquor.

Before taking up the liquor question as a health problem the editor wrote to all of the State boards of health of the United States inquiring as to whether or not they had published any literature on the liquor problem in its relation to public health. This inquiry has shown that health officers have given very little specific attention to liquor as a cause of preventable death. In our opinion the health officers of the country have been too slow in recognizing their relation to the liquor problem; however, we believe that once they have recognized that the fight against alcoholic intemperance is *their* fight, they will give such telling support to the forces of temperance as to largely atone for the lateness of the hour in which they come upon the field of battle.

The public health forces will introduce somewhat of a distinctly new method of attack in fighting the liquor question. Much educational work has been done in the past in opposing alcoholic intemperance, but much of that work has been discounted on

the ground that it was being carried on by "temperance cranks," extremists.

Now, if boards of health, as representing states or counties, should engage in this fight, the educational work that they would do, and this would be their only point of attack, could not be discounted to the same extent as the work of private individuals or temperance organizations has been; moreover, the health authorities in attacking the liquor problem would lay special stress on certain phases of the problem that we believe have not been sufficiently impressed upon the public mind:

(a) Such phases as the false idea of liquor being an aid in physical or mental work.

(b) The fact that a man drinks raises a question as to the stability of his mind to begin with, that is, that the liquor habit is often the result, *not* the cause of mental weakness, and therefore, the drinking habit is a reflection on a man's sanity; and

(c) Last and strongest we would stress the effect of liquor on heredity, its effect "unto the children of the third and fourth generation."



THE children of alcohol parentage are apt to suffer from many and varied forms of defect and generation which are undoubtedly attributable to heredity. Scarcely a day passes but which brings before me some instance of the frightful tyranny of a defective organization occasioned through indulgence by one or other of the parents. It is, of course, a well-known observation that, had our fairly immediate ancestors been less indulgent, many of our present day faults in metabolism, many of our nerve degenerations, would not now exist.—*Theo Bulkeley Hyslop, M.D., C.M., F.R.S.E., Lecturer on Mental Disease and Mental Physiology, St. Mary's Hospital Medical School.*

## Loss of Time Due to Drink

BY E. A. GASKILL,

Supt. of Parsons Pulp and Lumber Company, Laneville, W. Va.

**R**EGARDING the loss of time by men caused by the proximity of a saloon around which they may loaf until their money is exhausted: Our experience at Laneville [W. Va.] has been (and the following has been taken from careful observation) that with a pay-roll of three hundred men the actual number of lost days in the month without a saloon in close proximity will amount to two days or an average of twenty-four days worked to a man. With a saloon in close proximity it is conservative to say that the average would drop to twenty days worked in a month or a loss in average of four days to a man or twelve hundred days actual loss to labor.

Regarding the mistaken impression that employers of Austrian labor have to make it convenient for them to secure their wine, beer, etc., in order to keep the men contented, I let for the company here at Laneville a contract to a crew of Austrians. They have been working here for several months and at the time the contract was let it was stipulated that we would furnish them with no intoxicating drinks of any kind and that we would deliver none with our trains. This policy has been carried out and to my knowledge they have not secured any liquor and they are apparently satisfied and contented.—From remarks made at a lumbermen's meeting, Elkins, W. Va., and reported in the *American Issue*.



## Social Drinking and Alcoholism

**P**ROBABLY 80 per cent. of all persons who habitually drink alcoholic beverages form the habit inadvertently, unintentionally, and without any definite purpose in view. Among them may be found persons of the highest aims who, primarily, had sound bodies and minds and good habits, but who began the use of alcoholic beverages in a social way or with the erroneous idea that the effects of the alcohol would protect them from some prevalent disease, such as malaria, etc. Such persons continue the use of alcoholic drinks without mature thought as to their effects on them and certainly without any purpose to go to dissipation in any way; but no matter how begun, the frequent use, regularly, of even a small quantity of alcohol creates a demand for increasing quantities,

and this grows by almost imperceptible degrees until there is a daily consumption of considerable quantities of some alcoholic drink.—*Walter F. Burgess, M.D., Louisville Jour. of Med. and Surg.* (June, 1912).



## The Care of Children of Alcoholic Heredity

BY S. A. KNOPE, M. D.

**T**HE first thing that would seem to me essential is to discover during child life, and particularly during school life, as far as it is at all possible, any inherited tendency to alcoholism in children. Primarily this would, of course, be the duty of the family physician and later of the school physician. In families without a physician, the family history, paternal and maternal, and alcoholic habits should be investigated by publicly appointed physician, with all the delicacy, secrecy, and tact necessary for such a task. The unusually nervous or irritable, anemic or underfed pupil, and the mentally deficient scholar would justify such an investigation more particularly. The parent's co-operation may be of incalculable value in the preventive treatment for such a child.

In cases where investigation proves that either one or both parents are addicted to drink, the state would have a right to remove the children from such dangerous environments until such time as the parents have reformed their habits, or the child's character is formed and it has become strong enough to protect itself.

The treatment of the child predisposed to alcoholism should be physical and moral. The open air school, more outdoor play, and as little home study as possible, ample nutrition if such is deficient, hydrotherapy, and in extreme cases suggestion-therapy, or hypnotism, should be resorted to. It goes without saying that in all children, but particularly in children from an alcoholic parentage, intoxicants in all degrees of potency should be absolutely excluded from the daily dietary.

The continuation of such a careful life with abstinence from all alcoholic drinks is of course essential in later years, no matter what career the young man or woman may have chosen. This formation of character of which I have spoken is the only safeguard against the temptation to drink with which the young man, or, to a lesser degree, the young woman in college, shop, factory, or society, is beset.—*From an Oration before Ill. Med. Society* (1912).



# Class-Room Helps

Conducted by Edith M. Wills

## An "Ounce of Prevention"

BY DR. W. McADAM ECCLES, M. S., F. R. C. S.

IT IS proverbial that "Prevention is better than cure." When once deterioration has made a marked impression on the individual, there is but little hope that the result can be eradicated. It is impossible to introduce new arteries, to regenerate nervous tissue, to restore mental balance and to regain complete efficiency.

There is much said at the present day concerning the necessity of a living wage, and the inadequacy of the amount paid to the unskilled worker to provide him and his family with the bare needs of life. The fact is, however, not so much that higher wages should be paid to the unskilled worker, as that there should be no such person as one who must rank as unskilled or inefficient. Even the navvy ought to be skilled in his own particular line of occupation, and ought to be efficient in it. If he cannot properly use his spade, whether from want of knowledge as to how to manipulate it or from lack of muscular power to drive it home, ought he to receive the same rate of wages as his skilled mate? His ignorance is the fault, in most instances, of the State in not seeing that he is provided with that training which makes for efficiency. His muscular power is all too often the result of poisoning by the drinking of alcoholic beverages. Many, doubtless, are inefficient because of congenital defect. They are born of parents who were themselves degenerate, are nurtured in surroundings which produce further deterioration, and continue to poison themselves with a drug which makes for greater changes in the tissues, and greater inefficiency.

Therefore prophylaxis, or prevention, is all important, the only true and scientific manner by which the real remedy for the state of things is to be found. Start with the children, go on with the children, finish with the children, and in the course of even one generation a decided public opinion will be formed. Then, and to my mind only then, will Acts of Parliament have the far-reaching effect for which they are framed.

### THE TEACHER'S OPPORTUNITY

Teachers are wanted—skilled teachers, with an aptitude for teaching. Teachers are wanted who themselves have been taught the principles of hygiene and temperance, and who can impart their knowledge simply and graphically.

How is the future mother of the child to be taught the manner in which she should rear that child? Why, surely, by teaching her from her youngest days the right methods, with an example before her in the doll and the doll's house.

Cleanliness, tidiness, and the value of fresh air, sensible cooking and rational food and drink can be inculcated in a pleasant and instructive manner to even the very young. If the child is taught how to keep her doll clean, she will unconsciously imitate the same good manner in her own being and clothing.

So also, if the young mind is early made to learn that milk should be the chief component of its diet, and that other beverages are not desirable for children, it will at least, when it reaches the years of discretion, not have had its mind so biased that it cannot choose the good from the bad.

Teach the children throughout the land the elements of hygiene and temperance. I am more than thankful that the teachers in the elementary schools of our country are so fully alive to the value and importance of such instruction, and are giving it in a manner which does them infinite credit. They are doing a magnificent national work, and one which is not sufficiently recognized by the public. If this teaching is thoroughly and, practically given there is no reason why, in a succeeding generation, a public opinion shall not have been created which will carry with it all needed legislative reform in the matter of liquor control.

Then, for both men and women, a vast amount of instruction can be given on the subject by the placarding of boardings with posters, officially issued by the Health Committees of the municipal authorities. Since

the appearance of the Inter-Departmental Committee's report this method of education has been extensively used; but it should be repeated year by year, and more widely extended. It would be politic if those interested in the question, whether themselves abstainers or not, would see that the city and borough councils were provided with a special sum for this purpose, so that no one might say that public money was being illegally used. I believe in the municipal authorities themselves doing the work officially, for it comes with so much more force than if from private enterprise. Surely it is the proper work of the municipality, for the health of the people is at least as important as the lighting of the streets. If the authorities issue notices with regard to the spread and prevention of disease, consumption, they have as much right and responsibility to issue others on the relation of alcohol to physical deterioration and disease.—*Extracts from an article in the Journal of Inebriety.*



### How to Handle the Cigaret Evil

THE following newspaper clipping is taken from the Red Bluff (Cal.) *Daily News* of January 19, 1910. It shows how one school man is fighting the tobacco habit. There is scarcely a doubt that the records of every high school in the state would reveal the same dire effects of tobacco upon the growing boy.

That loafing around pool rooms is not the only evil or perhaps the worst that the high school boys indulge in was the subject of discussion in the high school assembly yesterday morning. Principal Paul G. Ward in his talk laid bare a deplorable situation for it was shown that nearly one half of the high school boys during the past eight years have been addicted to the use of tobacco. And he proved by the records that this habit nullified their efforts at school.

He took the records of the 69 boys enrolled between the years 1902 and 1908 and compared the work of the tobacco users and those who did not use it. Of these 69 boys 32 used tobacco—a sad commentary in itself—37 abstained. During this time our school has graduated from its four-year course fifteen non-tobacco users and only six tobacco users. And of these six three had to take five years for the course and finished badly, and of the three left one used tobacco only during his last year and another during his last two years.

*Not during this entire time has a tobacco user graduated with sufficient credit to merit a recommendation to the university.*

The non-tobacco users meanwhile have made a good record. Fifteen of them have graduated as against six of the tobacco users, none taking more than four years. Twelve of them have been recommended to the university for scholarship and eleven of them have gone on to higher institutions of learning.

Mr. Ward pointed out that the high school period is the most critical of the boy's life—the adolescent period when he is changing from a boy to a man—and that to take up the tobacco habit at this period would almost nullify any effort made with his studies.—From the *Cigaret Boy* issued by the California State Board of Education.



### Find Engineer Was to Blame

ALBANY, Jan. 10.—The engineer had been drinking the night before and had slept less than three hours. Hence the wreck on the Delaware, Lackawanna & Western railroad at Corning, N. Y., last Independence day, in which 40 persons lost their lives and 75 others were injured.

The public service commission so declared today after a painstaking investigation.

William H. Schroeder, the engineer thus charged, was indicted for manslaughter by a Steuben county grand jury, but was never brought to trial. The county judge dismissed the indictment upon motion of the district attorney.

The primary cause of the wreck, reads the commission's report, "was the entire failure of Engineer Schroeder to observe signals. The train into which he ran was protected by a full stop signal 250 feet east of the rear of the train, by a flagman 2550 feet east and by a caution signal nearly 4500 feet east. All three signals were disregarded.

"The evidence shows that the fog had lifted sufficiently to allow the signals to be seen with reasonable clearness; and even had it been as dense as Schroeder stated, no excuse has been developed for his running at the rate of 65 miles an hour. The investigation developed that the engineer had disregarded the duty of taking proper rest before attempting the important work of running the train. He acknowledged drinking during the evening before the accident. He visited several barrooms and one witness stated that he was seen staggering on the street. He apparently had



left but little undone to unfit him for his work.

"The action of the engineer should be considered as much an offence against the Brotherhood of Locomotive Engineers, of which he is a member, as it is against the railway and the public."

The commission approves the order, issued by the railroad since the accident, forbidding employees to use intoxicants.—*Boston Herald*, Jan. 11, 1913.

### Lesson Suggestions

**D**ISCUSS the following and other ways in which the well-known effects of alcohol may have been a factor in this and, similarly, in accidents in mines, manufactories, crowded streets, with automobiles, etc. The drinker often endangers others more than himself.

*"Did not see the signals."* Alcohol may impair the vision by causing a blurring of the images or a shortening of the range at which objects can be seen distinctly; or by causing the unsuspected development of a small color-blind spot in the center of the field of vision of each eye so that in the case of small signals like railroad signals the engineer might not be able to distinguish a red from a green light and a wreck ensue.

*The dangerous rate of speed.* Even quite small amounts of alcohol are known to impair perception, judgment and responsibility and result in reckless actions.

*Drinking the night before.* "Hangover" effects may persist for many hours after the drinker is supposed to be sober, lengthening the reaction time and so impairing the alertness of the mind that it cannot perceive the danger and act quickly enough to avert the threatened disaster. Drinking also favors late hours and thus a loss of sleep, impairs nervous control so that the limbs tremble or stagger and injuries may result in various ways.

Read article on page 63, and compare with rules of various railroad companies and orders.

### The Wilful Little Chicken

**O**NE day a little chicken said: "Mother, may I go out into the road? I think I see a bug in the road, and I wish to get it."

But his mother said: "No, no, my chick! You must not go into the road. I saw a hawk, just now, in the old oak tree, and I am afraid he will catch you."

"O mother, the hawk can not catch me. Just see how swiftly I can run! Indeed, I can almost fly. Just see, mother!"

And the chicken ran to the apple tree and back to his mother. But still his mother said, "No, no, my chick, you must not go into the road."

He was a naughty little chicken; so, when his mother was hunting bugs and did not see him, he crept under the fence and ran out into the road.

He caught the bug he had seen, and ate it. Then he said to himself: "Oh, is not this fine dust to make tracks in. I do like to make tracks in such fine dust!"

So little chicken ran up and down the road, making tracks in the dust. But soon the big hawk saw him. Down he came, and caught him and carried him away to his nest in the old oak tree.

O little chicken! little chicken! Why did you not mind your mother!—*Appleton's First Reader*.



### The Foolish Little Boy

**O**NE day a little boy saw some older boys smoking and he thought he would like to smoke too. It seemed to him to look very smart. His father and mother and teacher had said, "My boy, you must never smoke even one cigaret for many boys have been caught by the cigaret habit and greatly harmed."

But the little boy said, "I'm such a big strong boy the bad habit couldn't catch me. I should smoke only a little. It is only foolish boys who keep on and get caught."

But he was himself a foolish little boy and when his parents didn't know he sneaked away and smoked his first cigaret.

He said, "Isn't it smart to smoke cigarets! I do think it makes me look like a man," and he smoked some more.

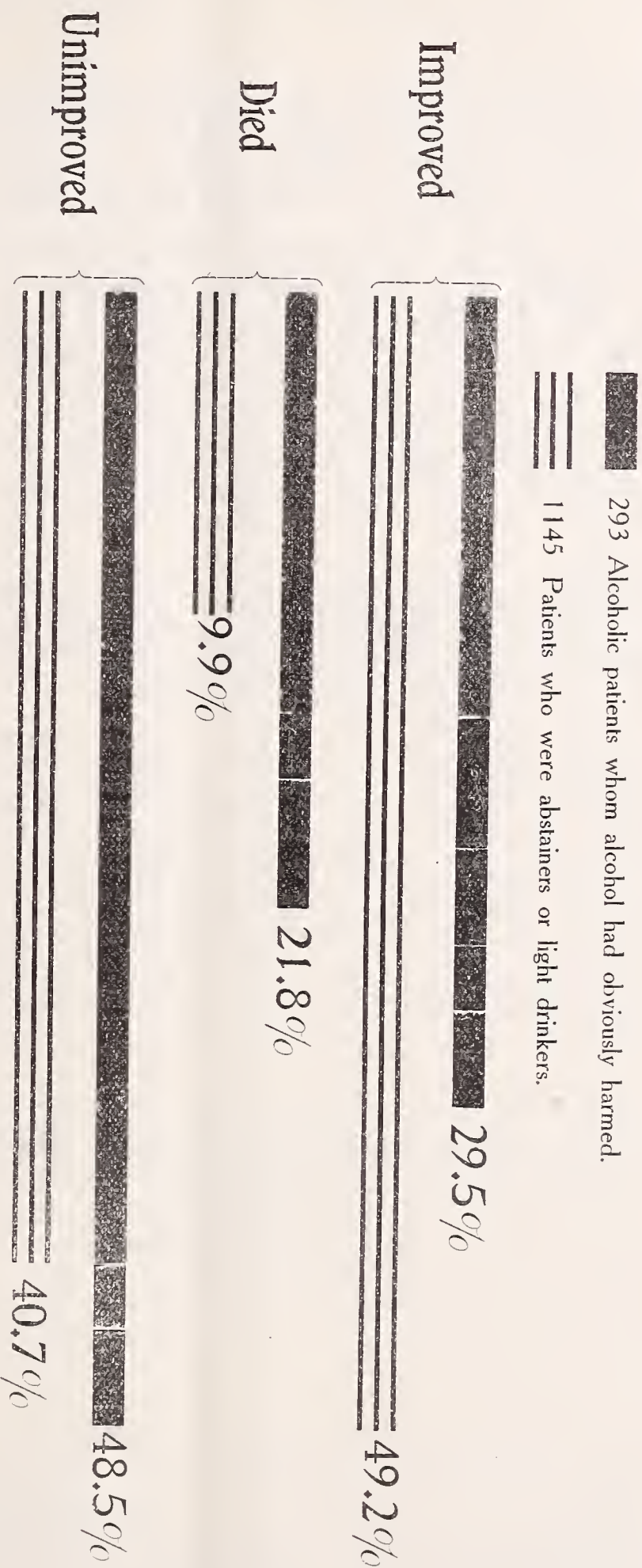
So he kept on smoking. Soon he began to long for the cigarets and he used more and more. The habit had caught him.

Before very long he began to fall behind in his classes. His rosy face grew pale and sickly looking. He did not enjoy the games as he used to for he did not feel very well. At last he even failed to make his grade. The doctor said if he couldn't manage some way to get free from the habit he would never grow up to be the manly man he ought to be at all for his body and mind would both be stunted.

Oh, little boy! little boy! Why did you not heed your parents!

# ALCOHOL A HANDICAP TO TUBERCULOUS PATIENTS

## Investigation at Phipps Institute, Philadelphia, 1907-1908



From the facts before us, alcohol is exceedingly dangerous to the tuberculous. The only safe rule is to abstain from it altogether.

—*Report of Phipps Institute, 1908.*



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*Published at -*  
BOSTON, MASS.

MARCH, 1913



## The Gist of the Matter

**A**RE inebriates born weaklings or does alcohol make weaklings of the drinker and through them of their children and grandchildren? To the solution of this much discussed question Dr. Wlassak (p. 73) brings several considerations: large blocks of people obviously not all congenital weaklings become alcoholic when drinking becomes prevalent; women and the Jews are not exceptionally free from mental disease, but being less subjected to drinking customs are comparatively free from alcoholism.

**A** SAMPLE of the knowledge that may be gained from local surveys is shown (p. 75) by an investigation of the costs of caring for forty drunkards and their families in the town of Elbing, West Prussia.

**A**S the use of alcohol lowers the thinking powers of the individual, it of necessity lowers the intellectual tone of a community in proportion to its pro rata alcohol consumption. Social consequences are bound up in the attitude a locality takes toward liquor selling (p. 77).

**S**OME of the definite endeavors aimed at by the eugenists are set forth by the President of the Michigan State Board of Health (p. 77): To give our children and grandchildren fifty years hence no cause of complaint against us for the quality of their thread of life. To teach girls to foresee the quality of their future children in the men they consent to marry; to teach young men to shun the doll-like loveliness of the attractive "moron" girl who will become a millstone about his neck after marriage. The task of eugenics is to exterminate her. State aid is to be called upon to prevent parenthood by the totally unfit.

Various remarks by Emperor William on the alcohol question presented chronologically (p. 80) show the gradual development of an anti-alcohol attitude. He has shown a sound preference for non-alcoholic beverages.

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# Scientific Temperance Journal

Vol. XXII

BOSTON, MARCH, 1913

*No. 7*

**T**O TEACH is better than to deny, to love and trust is wiser than to hate and doubt, to create is nobler than to destroy.

—*John Hay.*

[illegible]

## Is Alcohol a Primary Cause of Degeneracy?

BY DR. R. WŁASSAK, VIENNA

NUMEROUS observations have shown that a large proportion of the children of drinkers are degenerate. One explanation advanced is that the father's alcoholism has so injured him that his children are blighted before they are born.

The objection is raised to this explanation that the unfavorable conditions of the drinker's home, the bad housing, insufficient food and lack of training could have caused the defective condition of the children.

The excessive child mortality of the drinker's family would seem to indicate injured germ plasm, but without proof it cannot be definitely denied that it is not due to environment. But when it is accompanied by deformity, feeble-mindedness, epilepsy and other defects that do not originate in environment, germinal injury seems clearly indicated. To this the further objection is raised that the alcoholic fathers are descended from alcoholic stock; that drinking is an indication of weakness instead of a cause. It is true that nerve specialists find a large proportion of mentally defective or unbalanced cases among their alcoholic patients. They also find many cases of alcoholism among the mental disorders that are not alcoholic mental disorders.

## GROUPS OF ALCOHOLICS WHO ARE NOT MENTAL WEAKLINGS

No reliable estimate has yet been made of the proportion of alcoholics who come under observation at the mental clinics who are free from inherited weaknesses. But it is easy to show that mental weakness itself does not lead, with the force of a general law, to alcoholism.

From Frederick Engel's account of the English working classes during the first half of the last century one gets the idea that great masses of the people were alcoholics. Similar conditions are found today in some of the mining districts of Austria. Other examples are found among the student fraternities and finally, among the native races. We know how the importation of spirituous

drinks into the colonies leads quickly to the alcoholism of the natives.

Of course it is unthinkable that the alcoholism in all these cases is due to defective brains or inherited weakness.

## ALCOHOLIC DEMENTS GO WITH DRINKING CUSTOMS

It is equally erroneous to assume that there is an elementary instinctive desire for the sensations produced by intoxication. Alcoholic mental diseases are rare among women in countries where it is not customary for them to drink. Among the Jews, epilepsy and alcoholism are relatively infrequent, but there is mental disease among them also. Either can procure alcohol but "mental weakness" does not lead them into alcoholism, in the absence of the drinking customs.

## ALCOHOL FINDS THE WEAKEST PLACE

The whole question has hitherto been treated almost entirely by specialists in mental disease. It should be looked at more broadly.

Pathology teaches that the different organs differ widely in their ability to resist the same injury. The mental specialist gets the alcoholics in whom the brain was the organ least resistant to alcohol. The practising physician will tell you, if you ask him at what age the effects of alcohol usually begin to come to light, that many men retain their physical or mental efficiency until about their fiftieth year. Then they begin to show alcoholic troubles either in the heart, digestive organs or nervous systems. The drinkers who can stand a great deal before showing the effects—the tolerant drinkers—are rarely met by the alienist. He sees only the worst cases, among whom mental troubles predominate.

THE SLOWLY AFFECTED DRINKER AFFECTS  
THE RACE

It is the tolerant drinkers who are of most importance to the question of race deterioration through alcohol. They are the most numerous and they will have more influence upon the inherited qualities of the

\*From an address given at the XIII International Congress Against Alcoholism, The Hague, 1911.



race than will the mentally weak drinkers. They carry the most valuable elements, biologically as well as socially. As one looks about him he can hardly escape the conviction that it is the vigorous constitution of these tolerant drinkers that leads to their heavy drinking.

We know today, from physiological experiments, that the sensitiveness of the brain towards alcohol differs widely in different individuals. These tolerant drinkers are men in whom the symptoms of intoxication are late in appearing. They can "carry" a great deal without showing it because the safety valve of unpleasant sensations does not warn them until the strain has become severe.

But as all the tissues of the body are not equally resistant it is easily probable that the germ cells may be injured before the brain or other organs of the body show signs of injury.

Evidence concerning the descendants of these hardy drinkers would be of the greatest service because here the effects of alcohol could be observed apart from any existing tendency to degeneracy. We have as yet very little evidence of this kind and little attempt is made to obtain it.

The best method of obtaining such evidence would be individual observation by physicians of the families of drinkers and non-drinkers through several generations. But if one has no reliable data concerning one or two preceding generations and has to begin with the present, the solution of the question would have to be left to our grandchildren.

#### A PRACTICAL METHOD OF INVESTIGATION

A much quicker and practical method of study would be investigations of the descendants of a group of population that has taken up heavy drinking as a result of environment. Such a group, for example,

is furnished by brewery workmen. Inherited weaknesses may be found among them, but not more than in the general population.

The investigation should not stop with ascertaining the number of mentally diseased among their children, for these could scarcely be followed for more than 20 years. It would be better to ascertain the biological stamina of this generation as shown by the rate of infant mortality, tuberculosis, etc. A very practical indication would be the military fitness of the sons of brewery workmen.

We have already the statistics of Roesse showing that while 76 per cent. of brewery workmen were themselves fit for military service, only 43 per cent. of their sons were fit. But the number investigated was only sixty, much too small to warrant drawing conclusions. Information concerning large numbers could be obtained in a short time from government statistics. The kind of investigation I have in mind could not be made by a single individual; it would require a society that could command a large amount of material and the aid of hospitals, etc.

Bunge's work on the disability of women to nurse their children contains one table made up of families in which the fathers were free from inherited weaknesses. They are also shown to be free from any marked frequency of tuberculosis. But in the next generation a parallel is seen between tuberculosis and nervous troubles which rise with the amount of alcohol taken by the father.

The needed evidence on this question will not come from a further piling up of statistics concerning the hereditary taint of epileptics and feeble-minded but through new lines of investigation.—*Translated and condensed for the SCIENTIFIC TEMPERANCE JOURNAL.*



#### A QUESTION OF TIME

Do you think the jonquils under the snow  
Wake up with dread when it's time to grow?  
Or in mid-winter do you think they fret—  
"Isn't it time to get up yet?"

Or did Ancestor Jonquill ages ago  
The seasons of nature learn to know,  
And stamp the lesson on all his clan  
To live in accord with nature's plan?

E. L. T

## A Local Survey of What Drink Costs the Taxpayer

ELBING, a sea-port of West Prussia, is a town of about 50,000 inhabitants. In 1909, C. Unger, an assistant in the city magistrate's office, made an investigation of the costs borne by the office of the poor funds in caring for 40 notorious drunkards and their families for a period of three years. The result of his investigation was published in a Memoir, "Alcoholism in Elbing: its results and methods of combating it." A section of this is published in *Die Alkoholfrage*, No. 1, 1913, under the title of "The Burden Imposed upon the city Poor Fund by Alcohol," from which an abbreviated translation made for the JOURNAL is here given.

Besides giving a picture of the actual conditions found, it indicates some of the lines of investigation that could be made in any community for better knowledge of the conditions caused by alcoholism.

The idea now constantly gaining ground in regard to social evils is that we should not be satisfied merely to relieve existing need, merely to apply a plaster to wounds here and there, leaving opportunity for the opening of new wounds. We no longer look solely at the present, but ask where the present social misery had its origin. Whence does all this misery come? And then we stand ashamed because so much of it might have been prevented; many families might have been kept from poverty; a considerable part of the common public burden might have been spared, if only a dam had been erected across the source of the misfortune.

One of the chief causes of the various kinds of social misery, and a chief cause of the enormous burden imposed upon the poor budget has been rightly charged to alcoholism. Halle and other large cities ascribe a third of the costs of poverty to this cause; Hamburg one half, others more; Geneva even nine-tenths. Many directors of large institutions for relieving the poor agree with their opinion. Most communities, however, are without definite information as to how much the care of their drinkers has cost them.

The city of Elbing has made an investigation of the cost of poverty caused by drink during the years 1905 to 1908.

Forty families whose heads were known to be hard drinkers, were investigated as to the cost to the public arising from their sickness, mortality, arrests, and support, and the degeneracy of their children.

### THE DRINKERS THEMSELVES

Of the forty drinkers only five were free from marked conditions of ill-health. The medical treatment of the other thirty-five paid for by the director of the public poor funds come to \$1,150.30. This sum would have been much larger but for the fact that the sick clubs also bore a considerable part of their bills for sickness.

### THE DRINKERS' WIVES

Hospital treatment for the drinkers' wives cost the public funds \$715.67. Eleven of them had consumption at the time of the investigation. The number suffering from pelvic troubles gives a glimpse of the unspeakably sad lot of the drinker's wife. Sixteen of the wives had suffered a total of thirty abortions, while eight wives had given birth to still-born children. There is no doubt that many of these fatalities were due to the brutality and cruelty of the husbands.

One case from the records of the poor relief office shows something of the suffering to which the drinker's wife is subjected: Mrs. H., the wife of a notorious drinker, had been treated for abdominal inflammation, uterine inflammation, rupture, exhaustion, chlorosis, abortion with hemorrhage, heart disease, anaemia and rheumatism. She had been five times in the city hospital.

### THE DRINKERS' CHILDREN

Of the forty drinkers three were without children. To the remaining thirty-seven have been born alive 264 children of whom 102 died in infancy, and most of the survivors will be life-long burdens to themselves or others. Not less than fifty-one of them had tuberculosis—thirty-six of the lungs, eight of the bones, four of glands, two of the intestines.

The inflictions of these children help to swell the poor budget in various ways. They furnish the largest contingent of the charity schools. They cost the poor fund for sickness \$850.90. Many of the children because of the fathers' neglect had to be cared for in private families at a cost to the city treasury of \$509.93.

There was also a bill of \$4,774 for the support of these families for longer or shorter periods paid out of the poor funds.

The total of the items mentioned brought the cost to the city of these forty families, for the three years 1905-1908, to \$8,001.02.

This sum, however, represents only the actual money spent by the poor office. It does not include the indirect cost involved in placing the children in industrial homes,



orphanages and private families and the drinkers in workhouses. These costs also were borne by the community.

When we consider that these were only 40 out of a list of 396 drinkers whom the poor office has to look after, we begin to get a glimpse of the enormous direct cost that drinkers and their families are to the community.

#### THE INDIRECT COST

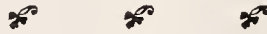
The matter of indirect cost is not so easily figured, but one instance will show that it is by no means insignificant.

The family of X. has had to receive public support of \$2.50 a month for 30 months because X. in a fit of intoxication slashed about with a knife and wounded a number of persons. His wife with three little children was left destitute and had to receive aid from the public.

From the poor fund also is paid the cost of placing many cases of mental disorder in institutions for treatment. During the year,

1908-9, seventy-four persons were so placed in the Conradstein at a total cost of \$3,970.10. I have personally examined the records of these cases and found that in sixteen of them at least alcohol was a direct or indirect cause of the mental disorder. Nine persons were themselves drinkers. Five were children of drinkers. One was struck over the head with a stick by an intoxicated teacher. One was the wife of a hard drinker who gave way to melancholy on account of his conduct. These sixteen persons have now cost the poor office \$2,592.38 and can be estimated to cost annually \$874.93.

These are costs which fall upon the poor budget on account of alcoholism. How much it costs the government in other directions is a matter that can be only roughly estimated. That it is no small sum is a fact well known to every close observer and student of the question.—*Translated for the SCIENTIFIC TEMPERANCE JOURNAL.*



## A Question of Good Thinking

BY E. L. TRANSEAU

**A**RE you a quick and accurate thinker, or a slow, or inaccurate one? Having eyes, do you see, or does your mind fail to note the objects that your eyes behold? Can you memorize a choice sentiment or a bit of poetry easily, and remember it a long time? More important still, what are you in the habit of thinking about? Are you like the English ploughboy who replied when asked the question, "Mostly naught, sir," or are you what George Eliot was once described to be, "a self-thinking activity," a person to whom every passing object calls up an interesting train of associations, like the story-teller who is always ready with his "That reminds me."

Do you think often about things that are worth while, the deeds of great men who have helped the world, the wonderful discoveries and inventions that have made living more comfortable, enjoyments that uplift and leave no sting, the causes of misery and how they may be abolished? Or are your thoughts and conversation all about the commonplace things, the price of eggs, or of stockings, the speed of a motor, the set of a gown?

However you may answer these questions to yourself, you would probably hesitate to

place yourself in the hands of that master mechanic of the mind, the psychologist, who could tell you in a twinkling whether your mind would grade up or down in these powers.

The psychologist has learned how to weigh and measure with mathematical exactness, the quality of one's thoughts, and this has enabled him to study further the influences that help or hinder good thinking.

#### WINE IN WIT OUT

Among the various ideas with which men have deluded themselves is the supposition that their power to think well can be increased by alcohol, that a glass or so of wine enlivens one's wits. But the psychologist says this is not so, and he has his proofs ready. He has found by precise tests that one does not observe as well after taking alcohol as before, that little things—letters, for instance, shot swiftly past a hole in a screen—will be less accurately observed, that a longer time is required for memorizing a few lines of poetry, or figures, and that ideas sink to a lower level.

Repeatedly the psychologist has assured us that it is the highest powers of the mind that suffer first and most from the effects

of alcohol. The checking power, self-control, is quickly weakened, explaining scientifically the old adage, "When wine is in, wit is out."

The psychologist does not wonder that a young fellow "does not know when he has had enough" of any alcoholic drink, for he has found that a glass or two may suffice to weaken the drinker's self-control, or resolution previously made never to "take too much."

#### MAKES THOUGHT COMMONPLACE

The psychologist has found also that after a dose of alcohol the mind tends to work more like a machine, automatically, instead of ingeniously. The word "ink" would be as likely to remind one who is under the influence of alcohol, of the word "pink" as of the word "write" because his mind is moved by external impressions, such as similarity of sound, instead of by logical relations.

Again, it used to be thought that a man could get drunk and be none the worse for it; or drink all he could "carry" without being drunk, every day and have as clear a head for business as he would if he did not drink.

Here again the psychologist stands with proof to the contrary. His precise tests have showed that quantities of alcohol which stopped short of making persons drunk steadily lowered their mental working power, not only while they were using it but for several days after they stopped it.

In short, the psychologist's evidence shows that alcohol tends to make a clever thinker a commonplace one.

#### THE COMMUNITY VIEWPOINT

The broad way of looking at this subject is to think not simply of one individual, but of a collection of individuals, the community, or state. If we know that alcohol tends to lower the powers of the human mind, is it a good thing for the community or the state to have it freely sold to whoever has the money to buy and lacks the wit to let it alone? Do we wish to help along any policy that may lower the thinking powers of any of our neighbors, friends, or fellow citizens? Do we wish to push any portion of mankind back down the hill of progress, which has been so painfully climbed?

The question, what will you do with alcohol, means what will you do to your friends and neighbors? Will you help put in their way an insidious poison that will certainly degrade the minds of some of them, and not always the weakest, for alcohol always strikes hardest at the most sensitive—or will you help the policy of keeping the brain-poisoning drink out of the way of all who do not go wilfully in search of it?

Responsibility for drunkenness and other forms of alcoholism does not rest entirely upon the individuals who become the victims. The society that places the poison in their way is highly responsible.



### Race Building

BY VICTOR C. VAUGHN, M. D., PRESIDENT MICHIGAN STATE BOARD OF HEALTH

**N**O CHILD should be born into this world save from good stock. However, "good stock" needs some explanation. It does not mean riches. We say that such a young man or woman has a great inheritance, and by this we mean riches but this is not the meaning given the term "good inheritance" by the eugenicist. One could hardly think of the rugged and masterly intellect of Thomas Carlyle or Abraham Lincoln coming from a line of wealthy ancestors. Among your ancestors, there may be those who were poor; those who won no official position; those who made no great contributions to literature, science or art, in short all may have been very ordinary people, but so long as all were sober, sane and honest, you have a goodly inheritance. This is a fam-

ily record of which but few kings can boast and its possession should be highly prized by those fortunate enough to rightly claim it, and it remains for such so to live as to honor the worthy dead to whose lineage they belong. As Macauley said: "As we would have our descendants judge us, so ought we to judge our fathers."

#### GIFTS TO FUTURE GENERATIONS

While I have been talking about heredity I dare say that the young among my auditors have been busy thinking of their ancestors, and wondering what manner of people they were. I ask you to turn about and face in the other direction. Let the dead past rest with those who have made us what we are, and with whom we are bound by the unbreakable thread of the continuity of the race. The fact that we



are here in this great institution of learning, striving to prepare ourselves for the duties that lie before us is sufficient proof that however the good and the bad may have mingled in our creation, the dominant characters in our lineage must have been good. Let us now look into the future—say fifty years from now. Then, young men and women will be wondering what kind of ancestors they had, and this means that they will be thinking of you and me. The past has made us; for the future we are responsible. When we were conceived, the gates of ancestral gifts were closed.

The warp and woof of the character habiliments that we are wearing have been spun, for the most part at least, by those who are now mouldering in graves. We are to prepare the character raiment for those who are to fill our places. Let us do this work skillfully, intelligently and honestly.

#### PASSING ON AN UNDIMMED TORCH OF LIFE

The generations of the future will have cause to bless or curse us according to the lives we live. By the process of evolution, man has grown to a degree of intelligence which makes him a co-worker with the creator, and the future of the race is largely within man's power to make or to mar, to illumine or to darken, to fill with the joy of life or with the regret of having been born. It may be that years from now some young man having apparently a brilliant future before him, will be stricken with insanity because one of you, his ancestor, got drunk and acquired syphilis. As potent as it is, heredity is not the only factor in determining the future of the race. A man may come from the best stock imaginable, and still he may do that which unfits him for parenthood. As advancement in each generation is possible, so relapses may occur. *Decensus averno facile est.*

Alcoholism, epilepsy, the venereal diseases, feeble-mindedness, insanity, and criminality should be absolute bars to parenthood.

Every normal individual from untainted stock should prepare for the responsibility of parenthood. All should know that each generation begets the succeeding one and that like breeds like with the possibility of betterment on the one hand and of deterioration on the other. Our children and their descendants through generations to come, with modifications coming in in each generation will bear at least some of our characteristics. If we are healthy they are

likely to be. If we are strong mentally and morally, they will receive through inheritance more or less of our strength. If we meet the problems in life courageously and honestly, they will find it all the easier to perform their duties with credit to themselves and with benefit to others of the same generation. Every deviation from the path of rectitude made by us will make it more difficult for them to keep the straight road. This is the teaching of science, and is it not the highest conceivable incentive to make ourselves strong in every proper direction? The young man or woman who neglects his or her opportunities for self betterment is doing an injury not only to self but to those whose thread of life is for the time in their keeping.

#### THE IMPORTANCE OF RIGHT CHOICE

I am compelled at this point to make a direct appeal to the young women. Do not marry a man of bad habits with the hope of reforming him. Even if you succeed in this attempt, which most frequently fails, you will likely bear children who will repeat the faults of their father. Don't marry any man unless you wish your children to be like him. In fact, women have been and are now, quite unconsciously for the most part, the stronger eugenic power as between the sexes.

There is one striking and regrettable way in which man often fails to show himself a eugenicist. This I regard as so important and vital to racial welfare that I must be permitted to go into some detail. The female moron [slightly feeble-minded], especially when of high grade and in early womanhood, is often very attractive. Her face has the doll-like loveliness so fatal to the susceptible man. In form and carriage she is to her admirer a goddess. He interprets her weak-mindedness as maidenly innocence, and he says to himself, sometimes to others, "She is the daintiest, sweetest, most innocent creature in the world. She never suspects anything wrong and she loves me so dearly that she would do anything I might ask. She is my darling little girl." It is true she is a "little girl," and she will never be anything more. Mentally, she never grows beyond "sweet sixteen." She is an animated doll, and, like her prototype, the bloom on her cheek will soon fade and her gay raiment will soon become tawdry. Many a young man of good stock and of excellent personality falls a victim to the bewitching moron girl. Her vine-like clinging love will entwine her admirer or any other post within her reach.

I speak with some feeling on this subject, because I have known former students of mine to tie these millstones about their necks, and then try to keep on the surface of the sea of life. After vain struggles, most of them sink out of sight. To the young men of my audience I wish to say, "shun the attractive frivolous girl." She is found in nearly every community. The object of the eugenist is not to multiply her kind, but to exterminate her.

#### THE MEASURE OF THE MAN TO BE

It may be asked what kind of development best fits for parenthood. It is man's nervous system which has made him the lord of creation. The Superman when he is established on earth, will not radically differ from his progenitors in size, height, muscularity or blood supply, but his nervous system will be more highly developed.

The Superman is to be healthy and intellectual but the standard of measurement will be neither of these. It will be civic worth, and what do we mean by this? We mean the service he renders his fellow-man. An efficient man is one who supports himself and contributes something to the welfare of the race. To beget and rear children worthy of him is to make such a contribution. "Good breeding" as used by the eugenist does not mean polish of manner, ability to behave properly on all occasions, to dress in fashion, as desirable as these qualifications may be. It implies the desire, energy and ability to render social service, to make the world better, be it ever so little, to make his life a blessing to others.

The eugenist will endeavor to induce the State to aid in the evolution of the Superman by restricting the reproduction of the obviously undesirable.

#### WHAT THE STATE WILL DO

The State will not permit the reproduc-

tion of the weak-minded, the insane, the alcoholic and the criminal, and will deny parenthood to those suffering from diseases which cripple offspring. This prohibition will be enforced by segregation or by sterilization, or by both. More attention will be given to the sanitation of school houses, and medical and dental inspection of the children constitutes an important move in the right direction. Instruction in hygiene, including that of sex, will be of great benefit. Vocational education must be extended and must have its roots in the primary and secondary schools. In these grades evidence of degenerative tendencies must be detected and the fit and the unfit separated. It is worse than idle to keep the normal and abnormal in the same classes and try to force the latter to keep pace with the former. Beyond a certain point in intelligence the moron cannot go.

More than two centuries ago, Descartes said that the regeneration and development of man must come through preventive medicine, and the experiences of the generations that have come and gone since that time confirm his statement. The suppression of diseases, both those that are transmissible from parent to child and those which affect directly only one generation is a State problem, and must be solved by the State.

To deny the possibility of race betterment is the worst form of infidelity; it means to be without faith in self, in fellow-men and in the Creator. To fail to work for it is to neglect the highest duty. Race betterment, which of course includes and depends upon self betterment, should influence our daily lives, form a basis for our ethical judgments, determine our political activities, and be a strong motive in our religion.—*Bulletin Michigan State Board of Health.*

#### A Dozen Don'ts for Daily Duties

**D**ON'T argue with the inevitable. The only argument available with an east wind is to put on your overcoat.

Don't preach too much. None preaches better than the ant, and she says nothing.

Don't waste your feelings. Feelings are too rich cream to be skimmed for nothing.

Don't be too patient. "Once in a while," said Uncle Eben, "a man compliments himself on having patience when he's simply too lazy to make a kick."

Don't pack up worries. You can get them anywhere as you go along.

Don't let your stream of life be a murmuring stream.

Don't use a pile-driver to pin on a bow of ribbon.

Don't measure success by accumulation, for this measure is false.

Don't talk over "prevailing conditions." Just make friends with your luck.

Don't fail to love your neighbors, yet pull not down your hedge.

Don't kill yourself with unnecessary work. There was once a New England woman whose epitaph read, "She hath done what she couldn't."

Don't leave the sky out of your landscape.—*American Education*, Sept., 1910.



## The German Emperor and Alcohol

The following interesting study of the apparently gradual development in the ideas concerning drink of Emperor William of Germany is translated for the SCIENTIFIC TEMPERANCE JOURNAL from "L'Abstinence," which in turn reproduced it from the original article by Prof. Ponickau of Leipsic in the review "Vortrupp."

The fact may be added that in the emperor's own household there has been unquestionably an influence against the use of drink. The editor of the JOURNAL accompanied the late Mrs. Mary H. Hunt when she was summoned to a personal interview with the Empress of Germany in 1903. While the etiquette of the occasion forbids publication of the details of that interesting hour's conversation, it was evidence that even a decade ago there was a member of the royal family who had much at heart the perils of drink to the children and to the nation at large. Incidentally it may be remembered that the royal household had six sons and a daughter. The Empress at that time authorized the public statement that she had every sympathy with the movement for the temperance education of youth of which Mrs. Hunt told her and wished it all success. The delicious non-alcoholic beverage served the guests present at that interview by the then "little princess" was that used on the royal table.

One other fact should have been included in Prof. Ponickau's study—the permission given by the emperor a few years ago to drink his health in non-alcoholic beverages. It seems probable also that the scientific studies in Germany of the effects of alcohol have had an influence with the emperor which is not recognized in this article.—EDITOR.

A GRADUAL evolution has taken place in the attitude of the German emperor towards alcoholic drinks.

In 1890, he seemed to hold the same ideas in regard to them which prevailed among the majority of German students. He had at that time an important political interview at Bonn with the Duke of Nassau, since the Grand Duke of Luxemburg, where he appeared in the costume of the Borussia Society of which he had been for some years a member. He seemed much charmed with the medieval customs observed by the great mass of students. Since then, according to repeated accounts, he has been present at student "kommers" and conformed to their rules. But it must be said that while appreciating the student's life, he has never been a drinker; he took alcohol more as a matter of sentiment and a temporary exhilarant than of gross and brutal pleasure.

Little by little, the alcohol movement developed in Germany. The emperor had occasion in the course of his career to see all the evils which alcohol brings upon his subjects. Possibly he has also found from his own experience that the habitual use of alcoholic drinks exercises not an alto-

gether desirable influence. In any case, he has had the example of a German prince who abandoned himself to drink and finished in total ruin. These unpleasant experiences occurring in student circles or among the army officers have led to his severe censure of excesses in drink. But these occurrences were private; the general public has been told nothing of them.

In 1910, it appears that the conviction had become lodged in the emperor's mind that the drinking habit constituted a serious menace to Germany. Receiving at Giessen the rector of the university, he regretted that there was so much drinking in the universities of Germany. During a visit to Hohkonigsburg, he questioned a student member of a student's corps at the University of Friburg, and severely censured the drinking habits of the German academic circles. He said it was a misfortune for the people and for the students themselves, and pointed out that the students and the people have much to learn in this respect from other countries, particularly of England and America.

On October 15, 1910, the centenary of the University of Berlin, he declared to the five students who took part as delegates from the university at the grand banquet at the royal palace that students must cut down their consumption of alcohol and take more interest in sports like their comrades in England and America. He charged the pro-rector of the University of Konigsberg to warn new students against alcohol, a commission which has been faithfully discharged.

Finally, on the twenty-first of November, 1910, we have his famous address to the naval cadets at the opening of the new naval academy at Murwick. The tenor of this was decided. He clearly charged these future naval officers to abstain from alcohol, and concluded by saying that the nation that uses least alcohol is the one that will win the victory.

The Murwick address was re-echoed throughout Germany. The pro-alcohol papers made desperate attempts to diminish the force of it by saying that the emperor only advised moderation. But by the stenographic report taken on the spot of which up to the present 128,000 copies have been circulated throughout the empire, the emperor was very decided, and it is a false interpretation to say that he was not speaking for abstinence.

Some time afterward, he returned to this subject which he evidently has at heart. On the nineteenth of August, 1911, he addressed the pupils graduating from the gymnasium of Cassel, charging them to consider the danger to which alcohol exposed the German people, and not to give themselves up to drinking customs on their entrance to the university. He quoted again to them the example of England and America where the greatest university ceremonies, the inauguration of a president, for example, take place without the drinking of a drop of alcohol. He again recommended an interest in sports, especially in rowing, and begged them not to try to establish a record of being the greatest drinkers. Drinking customs belong to another age; the German people have other tasks to perform.

An exhortation of the same kind was made in December of the same year during a visit of the emperor in Zurich in a short interview which he had with three students representing the organization of German students in that university. In this he pleasantly and tactfully admonished them to keep away from alcohol.

To what and to whom are we to attribute this decided evolution in the mind of the emperor? To experience of life, without doubt, but also to contact with certain men of rank on his own immediate circle who have been and are still the determined adversaries of alcohol, particularly, Marshal Count Haeseler and the actual head of the navy, Admiral von Müller. It is these combined influences that without doubt have given the impetus to the anti-alcohol movement in the navy where numerous lodges of Good Templars are being organized.

One may ask—it is an indiscreet but natural question—whether the emperor applies to himself the logical consequences of this decided attitude in regard to alcohol. This much is known on that point: Without being a total abstainer, the emperor is generally abstinent. He takes at table, by preference, a non-alcoholic drink prepared especially for him. Occasionally he gives a toast in this drink, as when swearing in the recruits at Wilhelmshaven in March, 1911. It is also known that at the imperial maneuvers in 1910, he asked that alcoholic drinks should not be brought him, but that he be served with non-alcoholic beverages. He has long ago broken with the drinking habit, and understands very well that even at his table people abstain from alcohol.

Without doubt he was not surprised when, in 1911, General von Hotzendorff of Austria asked at the imperial table to have a little water in place of wine.

It remains now for the emperor to take the logical final step and become a total abstainer. If he has not yet done so, it must be that the social prejudices that support the alcohol habit are such that even a very strong will does not yet conquer them. As head of a great nation, obliged by his duties to be its representative, the practical consequences of abstinence present for an emperor difficulties that are not in the way of a simple citizen.

But the German abstainers, realizing the enormous influence that a still more decided attitude of the head of the empire would have upon the progress of the movement, hope that the day will come when the emperor will be entirely with them, when the powerful German monarchy will be directed by a man who is at all times a drinker of non-alcoholic drinks.—*Translated for the SCIENTIFIC TEMPERANCE JOURNAL.*



### A National Mental Peril

THE most distressing matter with which eugenists are at present concerned is the inheritance of defective mentality. The prevalence of feeble-mindedness in this country is becoming alarming, and demands the attention of all who are interested in the future of the race; and who is not? Without being an alarmist or a pessimist, I wish to say that the American people is threatened with the spread of mental and moral degeneracy through the multiplication of the unfit. I am not alarmed about this because I believe steps will be taken to check this threatening disaster. However, it is the plain duty of those who perceive this danger to call attention to it and suggest if possible, how it may be averted. Davenport and Weeks after making a scientific study of epilepsy and feeble-mindedness in New Jersey make the following statement: "If our data should hold for strains with epileptic members we should conclude that if no change in mating and fecundity occur, the number of epileptics and feeble-minded in the State of New Jersey will be relatively double what it is now in 1940, and relatively four times as common in 1970. Thus, if the present proportion is 1 to 500 it would be 1 to 125 in 1970."—*Dr. Victor S. Vaughn, Univ. of Michigan.*



## *With the Editor*

### A New Pamphlet for the Great Essay Contest

A SCHOOL prize essay contest on the subject of "The Effects of Alcohol on the Human Mind and Body" is being inaugurated in Baltimore. The funds for the 400 substantial prizes, nine being for \$50 each, are contributed by wealthy Baltimore men, and the Anti-Saloon League in Maryland is carrying through the matter with the hearty co-operation of the city school board.

The essay will be a part of the regular school work of every pupil above the fourth school year. To provide additional information, and to assure adequate material for all pupils, the League arranged with the Scientific Temperance Federation to prepare a pamphlet on the subject of which a very large edition is being printed for distribution in Baltimore. It will also be obtainable from the Federation for use elsewhere. It will be a 32 page pamphlet with more than twenty illustrations, many of them taken from the Federation's exhibit prepared for the International Congress on Hygiene. The price of the pamphlet to purchasers will be announced later. It will be a valuable handbook to teachers and all interested in presenting the new scientific aspects of the alcohol question.

### One Death an Hour From Extreme Alcoholism

A YEAR ago in a review of Mr. Phelps' book, *The Mortality of Alcohol*, the JOURNAL using his basis of estimates pointed out the fact that alcoholism and liver cirrhosis due to alcohol stood among the first fifteen in death-dealing diseases in the United States. Leaving aside for the moment the 104 other causes of death in which alcohol may be one factor, these two, alcohol and liver cirrhosis, were shown to carry off at least 9,709 men and women annually.

Now come some confirming statistical estimates arrived at by an entirely different route by Rev. U. F. Muller, C. PP. S., in a study kindly sent the JOURNAL. They are based upon the detailed mortality statistics for 1900-4 of ten states, Connecticut,

Indiana, Maine, Massachusetts, Michigan, New Hampshire, New Jersey, New York, Rhode Island, and Vermont. Reports from these states showed for the five years, 5,220 deaths of persons from 20-69 years of age from alcoholism—the deaths which were unmistakably due to drink—and 11,017 deaths due to liver cirrhosis, or a death-rate from these two causes of 28.3 per 100,000 living of these ages, or 35.9 for men and 20.7 for women.

"To appreciate the ravages due to alcoholism in one of these two forms," says Fr. Muller, "one should remember that this means that in a census period of ten years in the states named alcohol carries off one man in every 280 between the ages of 20 and 69, and one woman in every 483.

"If equal rates prevail throughout the United States, and there is no reason to doubt this but rather to confirm it, there died of alcoholism [and liver cirrhosis] in the decade 1900-1909, 72,050 men and 39,450 women, a total of 111,500," an average of 11,150 deaths per year from these two causes alone.

Fr. Muller has estimated that practically all deaths from liver cirrhosis at these ages (75,400) are due directly or indirectly to drink. Probably few physicians would agree to that. The medical directors consulted by Mr. Phelps gave estimates ranging from 30 to 90 per cent. with an average of 67 per cent. Applying this average to Fr. Muller's figures for the sake of comparison, it gives an annual death-rate from alcoholism and liver cirrhosis due to alcohol of 9,661 for the ages 20-69 as against 9,709 for the ages 20-74 as estimated in quite a different method by the JOURNAL.

Hence it is fairly certain that not less than about 10,000 men and women die directly every year from extreme alcoholism from causes which can be checked up to the charge of drink. This does not include, it should be remembered again, all the other deaths from accidents and many diseases in which alcohol is a prominent or contributing cause, and which, with the deaths due to extreme alcoholism, Mr. Phelps estimated amounted to not less than 65,897 deaths annually.

*Alcohol-caused deaths are preventable deaths.*

*Alcohol-caused disease is preventable disease.*

These two sentences need now to be dinned into the consciousness of boards of health, of physicians and of the world at large.



## Encouragement in Education

**T**HAT there is no true progress save along the route of education is heard so often that it has become a truism. In dealing with drug problems, alcohol, opium, cocain, tobacco, and the like, the hold which the drug has on its victims is so strong, the delusions which it creates are so great, that the change in popular custom comes but slowly, and the aid of the law is granted reluctantly only as a convinced popular opinion demands it.

The power of education in improving public health is demonstrated, however, in other matters where there is less to combat. The Michigan State Board of Health a few years ago emphasized the fact that as knowledge of the cause and means of prevention of tuberculosis spread, the death-rate in that State decreased. The disease was under observation for many years before the educational campaign was begun and it did not decrease. The decrease was nearly coincident with the education, "lagging behind somewhat at the outset and gradually increasing later, as would be expected if caused by popular education." A similar decrease took place in the death-rate from scarlet fever and from other diseases along with systematic popular instruction as to the methods by which these diseases usually spread, and in the best methods for their restriction. "There is no known cause," said the Report, "capable of producing such a gradually increasing effect as is shown to have occurred."

The situation as to popular education concerning the effects of alcoholic drinks and other similar drugs is infinitely more difficult. There is no financial interest whose very existence depends on the sale of tuberculosis germs. There are no long centuries of entrenched social custom of gay imbibing of the bacilli. There is no notion that the only danger in the germ is conspicuous tuberculosis. No one entertains the idea that a regular daily inhalation of germ-laden air—if it is not too bad—is actually conducive to health, well-being and efficiency.

At all these points, therefore, education

as to the dangers in alcoholic drinks has opposition to meet which does not present itself in the tuberculosis campaign. The latter, however, in its methods and success has much to give in the way of encouragement, somewhat to suggest in system and universality of education.

The writer does not agree with a social worker who not long ago bluntly informed an audience of trained workers against alcohol that the "temperance people had not kept up to the pace in education." Many of the men who heard him had been doing vigorous educational work according to the methods of the day before that young man ever opened his eyes to the light. But it is true that new epochs bring new needs and new methods, and, judging from the progress of the past decade the next quarter century is to see an immense advance in education concerning alcohol and its results which all history shows is bound to attend the spread of truth with the logical consequences in the abolition of drink. We have now a generation in the United States which has learned in the public schools the facts about alcohol. If this is continued and strengthened, another twenty years of such work as has developed in Europe in the past decade, will also begin to show its effects upon the immigrants from those lands and will by so much simplify our alcohol problem now seriously complicated by the foreign drinker. Already there is evidence of this among many of the comers from countries like Scandinavia and Finland where education and work for personal abstinence has longest been intensive.



## Tuberculosis by Professions

**A** FLORENTINE physician, Prof. Giusti, according to *Les Annales* (Jan, 1913) has prepared a table showing the relative number of deaths from tuberculosis per 10,000 occurring in Florence between 1907 and 1911 in the various professions. The average death rate from the disease was 34.1 per 10,000.

At the top of the list are the soldiers with a rate of 112.3. Second, with a rate more than twice that of the average, stand the retail liquor dealers—76.7 per 10,000. Next, but considerably below them, come the garment makers, 58.1, then the skilled mechanics 55.6, the builders 52.9, and the vagabonds, 50.2. The other callings, grading down to the average are, in the order named, the woolen-makers, the Catholic



clergymen, the textile workers, printers, servants, metal-workers and sailors (38.8). Below the average are those occupied in the food industries, artists, railroad men, merchants, and lowest (20 per 10,000) persons of independent means.

One of the chief causes of the high prevalence of tuberculosis in France, says the *Paris Temps*, is the scourge of alcoholism. Statistics show very clearly, the paper affirms, that the development of alcoholism has been an active factor in tuberculosis. There can be no doubt that the departments with the greatest tuberculosis mortality run parallel with those having the highest alcohol consumption.

### A Sign of the New Times

AT a recent celebration of the German Confederacy held in Bohemia a society of art students erected and maintained a stately pavilion for the distribution of non-alcoholic drinks in the midst of the beer and wine booths which heretofore have had no such rival.

It is regarded as a significant sign of the times that this action was taken by a class of students that has been closely associated with the worship of Gambrinus.—*Press Circular of the Deutsche Verein*, Feb. 1913.

### From Various Lands

THE Governor-General of the Belgian Congo has prohibited the sale and distribution of distilled liquors to the natives throughout the colony. The order went into effect Jan. 1, 1913.

THE subject of alcoholism is receiving attention in Portugal. A circular containing more than 6,000 signatures has been presented to the Senate and Chamber by the Republican League of Portuguese Mothers asking urgently that measures be taken to forbid the sale of alcoholic liquors to minors.

THE new Norwegian Parliament now contains an organized anti-alcohol group of 52 members, nearly half of the majority of the assembly and more than half of the majority party. They chose as chairman the jurist Abrahamson, who has been made minister of Justice by the President of the Council.

The large number of organized abstainers in this Parliament is particularly important because it will have before it for

consideration the report of a commission appointed to study restrictive legislation for the alcohol traffic.—*L'Abstinence*, Feb. 10, 1913.

### Alcohol the Peril of the Tropics

IT IS not malaria, nor dysentery, nor sleeping sickness that the white man has to fear in the tropics," writes Dr. Paul Rohrbach, the experienced African traveler sent as correspondent by the *Tagliche Rundschau* to the new German African possessions, "the real tropical disease is simply alcoholism."

Reports of conditions in the American army, made while fighting was still going on in the Philippines, summarized in Mr. Edward Bunnell Phelps' "Tropical Hazards or Life Insurance Risks in Cuba, Porto Rico and the Philippines"\* showed that it was the soldiers in hard service who chiefly suffered from diseases supposed to be especially dangerous in the tropics. Alcoholism of course is generally recognized as an important factor in hot climates in increasing susceptibility to disease.

The book by Mr. Phelps is chiefly valuable now from an historical standpoint showing the unhygienic conditions found in the tropical islands and what was even then being done to change them. The progress of medical science in a decade is indicated by the quotation of a report on yellow fever to the effect that the "laws governing this disease have not yet been discovered." Yellow fever is today a conquered disease largely of the past, because of the discovery, through the self-sacrifice of two heroic physicians, of the simple method of its transmission.

The spread of social disease among the men of army and navy was noted especially in Porto Rico, where the rate was more than twice as high as in Cuba, almost three times as great as in the Philippines.

Army reports are quoted to show the danger to home communities from returned soldiers infected by a foreign native population declared by army officers to be syphilized.

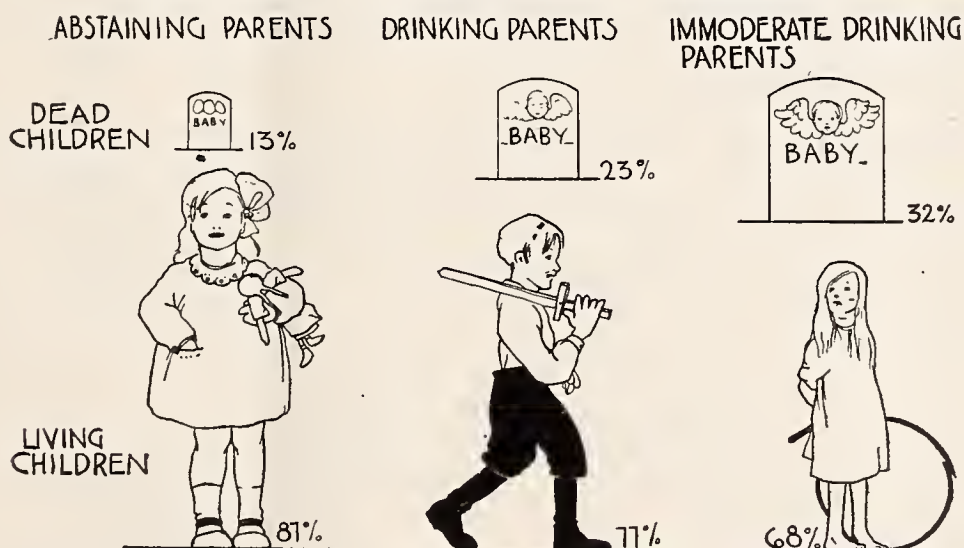
The book contains a compendium of the rules of various life insurance companies when the book was issued as to army and navy risks and provisos regarding travel or residence in the tropics.

\*Thrift Pub. Co., New York, \$2.00.

# VOICES THAT AGREE

|           |  |
|-----------|--|
| Scripture | Wine is a mocker, strong drink is raging, and whosoever is deceived thereby is not wise.   |
| Labor     | As time goes on, the requirements for exact and high class work by men in the trades is increasing, and they cannot afford to allow their brains to be clouded by the effects of liquor.—Edward A. Perkins.  |
| Education | The basis of intemperance is the effort to secure through drugs the feeling of happiness when happiness does not exist. One and all the result of their habitual use is to render the nervous system incapable of telling the truth.—David Starr Jordan.   |
| Business  | The first and most seductive danger and the destroyer of most young men is the drinking of liquor. There is no use wasting time on any young man who drinks liquor, no matter how exceptional his talents.—Andrew Carnegie.  |
| Science   | Alcohol has seemed to us a nice plaything or even an amiable friend. Today, however, we know that the jolly comrade, for the price of one hour of exhilaration, cheats us out of our self-respect, that it brings ruin to every being and every nation that yields to it.—Prof. E. Kraepelin.                          |
| Purity    | May we not hope that some of the experiments made by governmental and municipal authorities to control and regulate the sale of liquor will at least meet with such a measure of success that the existence of the social evil will be imperilled because deprived of the artificial stimulus of alcohol?—Jane Addams. |

## INFANT MORTALITY ACCORDING TO DRINKING HABITS OF PARENTS



Investigation of Dr. T. Laitinen, Rept. XII Intern.  
Cong. vs. Alcoholism.

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"Abstainers" were persons who had never used alcoholic drinks, or at least since marriage. "Drinking" parents used no more alcohol than corresponds to one glass daily of 4 p. c. beer. "Immoderate" drinkers drank daily more than the equivalent of one glass of 4 p. c. beer.

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APRIL, 1913



## Chronic Alcoholism

BY PROF. KARL DEHIO, DORPAT, RUSSIA

**O**F MUCH greater significance than the single acute alcohol poisoning is the chronic form of the use of alcohol which leads to chronic alcoholism. This consists, in the strict sense, of a continued series of single acute poisonings. If the separate indulgences in alcohol follow each other in such succession that sufficient time intervenes between them for the after effects of the first dose to completely disappear before the second is taken, then we have to do with cases of repeated separate drinking, but not with the condition of chronic alcoholic poisoning where the body is constantly under the influence of the after-effects of alcohol.

If on the other hand, the doses of alcohol are repeated so closely together that the effect of the second dose begins before the after-effects of the first have disappeared, then the effects are cumulative and cause corresponding disorders.

A so-called moderate quantity of alcohol leaves behind effects that are not completely gone after twenty-four hours. The repetition of such a quantity every twenty-four hours leads, therefore, gradually to an accumulation of the effects, to a continuous effect, which is manifested in a chronic diminution of mental and physical executive ability. Then we have before use the condition of chronic alcoholism.

It is evident that the origin of chronic alcoholism depends not so much upon the size of the single dose as upon repeated drinking at such short intervals that a complete recovery of the organism does not take place.

Since for such restitution from moderate doses of alcohol, at least twenty-four hours are necessary, there is danger in the regular daily use of alcohol, even if every single time, only so-called moderate quantities are used.

From the foregoing, I come to the following conclusion:

*Whoever desires not to put himself in danger of chronic alcoholism, will avoid taking alcoholic drinks regularly and daily, for experience teaches that whoever drinks daily consumes as a rule such quantities that continued effects and chronic conse-*

*(Continued on page 96.)*

### Some Modern Facts About Alcoholic Drinks.—

By E. L. Transeau and C. F. Stoddard. A practical pamphlet for young men. 16 pp. \$.05 each; \$1.50 per 100.

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# Scientific Temperance Journal

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No. 8

## Men's Responsibility for Boys' Smoking

"Imitation is a primary social factor and especially strong in children. Whatever they see going on about them, comes, sooner or later, to be a part of their own habits, customs and views in general."



### What the Smoker May Pay for His Indulgence

By L. VON FRANKL-HOCHWART

University Lecturer on Neuropathology, Vienna

FOR nearly sixteen years I have noted with every patient the amount of smoking, and have collected over 1500 case histories of severe nicotinism from which I have excluded all (about 800) that involved other toxic factors, especially alcoholism, diabetes or syphilis.

#### WHAT "APPARENTLY SOUND" MEN SUFFER FROM TOBACCO POISONING

In order to get an idea of what injuries were present on the average in those apparently sound, I prepared a kind of "normal table" obtained by questioning 800 men, corresponding closely in circumstances to my private patients, concerning their smoking habits. The normal table included 230 non-smokers, 411 light or moderate smokers and 159 heavy or excessive smokers.

Of the light smokers about one-third complained of slight troubles which they attributed (many erroneously) to the use of nicotine. Of the moderate smokers about one-fourth showed certain troubles, often very slight and mostly transitory; of the heavy smokers more than half had disorders, many of a painful nature and long continued. The chief complaint was heart palpitation, after that, general nervousness. Then followed dizziness, stupor, ringing in ears, etc.; sleeplessness, tremors, specks before the eyes; sometimes dyspepsia, constipation were complained of. One fifth suffered from headache.

#### SERIOUS INJURIES IN ADVANCED CASES

Of my 700 patients about fifty placed defects of memory in the foreground. With many I had the impression that it was chiefly a question of distraction such as we often see in neurasthenics. Others believed themselves to be actually unable to remember. In one case I was able to see an abatement of this symptom result from abstinence. I have also, in common with Descaine, become convinced that smoking in childhood is especially liable to lead to this kind of defect.

I have had thirteen cases of disorders of

consciousness in heavy smokers without any manifestations of true epilepsy. Of course these cases must be kept distinct from apoplectic attacks. We know that to nicotine must be ascribed a considerable contributory influence in hardening of the arteries. Premature apoplexy is not infrequent in this class of cases. I have had sixteen cases in relatively young men in whom there was no other essential factor than excessive smoking.

Among my heavy smokers I found fourteen epileptics. In nine cases the epilepsy existed in childhood and one got the impression that immoderate smoking had had an unfavorable influence upon the frequency of the attacks.

In five cases, however, there was a relatively late setting in of the attacks in men between twenty-four and forty who were free from hereditary taint and with whom all other toxic factors, as alcohol, syphilis, etc., were excluded and in whom no starting point for an organic brain lesion existed.

Not infrequently certain difficulties of speech or of writing, defects in word memory, etc., occur among heavy smokers.

#### TOBACCO IMPAIRS SIGHT AND HEARING

Among the nicotine affections of the nerves of the brain the most interesting is that of the nerves of sight. Heavy smokers not seldom complain of specks before the eyes, with which symptoms often, but not always, a sense of pressure in the head is associated. Less harmless are the true optical disorders which have been known for a hundred years. In many cases there is a combination with alcoholism; but there is also pure nicotine amblyopia [dimness of vision]. [Color vision for red and green is also often impaired.] Changes in the pupil appear to be of special importance. I have had forty cases of that kind. In twenty-two cases I observed evident, though not particularly large differences in the pupil.

That tobacco smoking can and does injure the mucous membrane of the nose, throat,



and eustachian tube, and in this way favors affections of the middle ear, has been known since Trequet. I have found sometimes in my heavy smokers nervous difficulties in hearing which were probably to be explained by these abuses.

#### NEURALGIA AND MOTOR NERVE TROUBLES

After consideration of cerebral symptoms we will turn to those of the spinal cord. Here neuralgia takes the lead especially individualized forms which I met thirty-one times; twenty-two were of the nerves of the arm. . . I believe that excessive smoking causes a predilection for the troublesome effects of injuries upon the motor nerves. A thirty-year-old lawyer contracted a slight paralysis of the arm from grasping a guard rail in the theatre in order to see better. The case seemed to me explainable, in an otherwise sound man, from the existing nicotine excess.

Much more frequent than the above individualized neuralgia are the diffused pains which I observed in 110 cases. It was not so much lancinating pain as an unpleasant, grinding pain chiefly in the extremities, often in the chest and back. Mention may be made here of another affection in which nicotine plays an important part—intermittent limping. During rest, movements of the legs appear to be normal, or nearly so. In walking there may be nothing out of the way for the first five minutes, then a characteristic inhibition shows itself in one or both legs, the feet drag more and more to complete refusal. There is often no feeling of disturbance; many times there is slight numbness; but often pain and not infrequently the skin is noticeably discolored. Alcoholism, syphilis, diabetes and gout are often present in these patients; but a particularly active factor appears to be nicotine abuse (Erb and Schlesinger).

#### INJURY TO LIFE'S CITADEL

Finally, we may take a glance at the nervous affections of the internal organs, without going into details.

That the heart is very early affected by smoking is a long familiar fact. That certain, often organic changes are demonstrable in the nicotin heart, no one doubts. Though many authors do not believe that nicotine gives rise to hardening of the arteries, they do not doubt that this poison can constitute a factor in provoking it. The most frequent symptom is palpitation of the heart which is usually of only a moderate degree but often becomes very marked.

#### THE ALLY OF RACIAL DEGENERACY

I have seventy histories of young men who were heavy smokers and who complained of considerable abnormality of the genital function. Particularly striking to me is the fact that in this group were many heavy cigaret smokers. Some of those had hereditary taint, many were nervous before beginning to smoke. With a whole group, however, the disturbances did not begin until after long smoking; with many various other conditions were included; with not a few the disturbances were confined purely to sexual factors. Abstinence [from tobacco] improved the condition of many of them.

[He concludes his article by emphasizing the fact, learned from his experience that the localization of the toxic action of tobacco is very much like that of syphilis and that "while excessive smoking does not play the leading role in the origin of nervous symptoms among the syphilitic, it is always a not unimportant factor." Thus in forty-five cases of apoplexy in syphilitics 44 per cent. were heavy smokers; and among his 583 patients suffering from tabes or general paralysis, 34 per cent. were heavy or immoderate smokers. These percentages were about twice as high as among a number of normal men.]—*Translated for THE SCIENTIFIC TEMPERANCE JOURNAL.*



#### The Enemy of Ambition

SOME years ago, *The Lancet* in an editorial made the following statement among many others:

"To the young man, and more especially to the medical student, in whom we are particularly interested, we would say: Shun the habit of smoking as you would self-destruction. As you value your physical and moral well-being, avoid a habit which for you can offer no advantage to compare with the dangers you incur by using it. The bright hopefulness of youth, its undaunted aspirations, and its ardent impulses, require no halo of smoke through which to look forward upon the approaching struggle of life. Your manner of living must be bad indeed if you require anything further than sleep, exercise, and diet to fit you for your duties as students. Your minds must be emasculated indeed, and arrant cowards must you be, totally unfit for the stern realities of what is to come, if you cannot face your present few and comparatively small anxieties without having recourse to the daily use of narcotics."—*Quoted by Dr. Tidswell in "The Tobacco Habit."*

## Tobacco as a Cause of Failures and Withdrawals in One High School

BY RICHARD L. SANDWICK

IN THE school of which the writer has supervision it has been noticed that the odor of tobacco often accompanies low marks; and furthermore, that the boys who come from other high schools, smelling of tobacco, usually fail to bring credit for all the studies taken in those schools. It was suspected, also, that student mortality might be greatest among those addicted to the tobacco habit.

To get at the facts in the matter I had one of the students make an investigation. The task was given him as a piece of original research in the class in economics, the subject assigned being "The Effect of Smoking on Student Efficiency." This young man was chosen with some care. He is a senior, capable, trustworthy, and an earnest worker. He does not use tobacco himself; yet he enjoys the confidence of all the boys who smoke. He is the best all-round athlete in the school, captain of the track team, quarterback on the eleven, and member of the glee club. He disarms envy, however, by working to earn money and support himself in part while attending school.

The young investigator had the privilege of moving about during study periods, sitting and talking with the other boys as he saw fit. The school records of marks and attendance were open to him; and while he did not disclose to me the names of any smokers, he had access to me constantly for advice in the work. In each case he assured the boy investigated that the information he secured was for statistical purposes only, and that he would in no case disclose the names of smokers. The smokers had confidence in these assurances. They freely told him the facts about their use of tobacco, and in some cases became much interested in the problem he was investigating. But he took pains in all cases to check up the statements of a boy by the statements of that boy's friends, so that he might know that the information he received was *bona-fide*.

Sixty-two boys were investigated in the first-year class and ninety-four in the second and third and fourth. These comprised very nearly all the boys now in school. In addition he secured reliable information regarding forty-five of the sixty-two boys who have left school in the past three years without completing their course, and all the

graduates of these years. The results of the investigation are particularly interesting. Of the graduates not one was found to have been an habitual smoker while in school. Of the forty-five quitters who were investigated all were habitual smokers and none were in good standing in their classes at the time they left school. The average grade of these in all studies was 60 per cent., six points below the passing mark.

Of the ninety-four upper-class boys, thirty-eight were found to be habitual smokers; thirty-six never had smoked; and twenty had formerly smoked more or less but had abandoned the habit. Their grades are as follows:

|                  |              |
|------------------|--------------|
| Non-smokers      | 83 per cent. |
| Reformed smokers | 79 " "       |
| Habitual smokers | 76 " "       |

The marks are in each case an average of all the marks received by that group of students while in the high school.

Of the sixty-two first-year students, seventeen were found to be habitual smokers, forty-one never smoked, and four had given up the practice. Their grades when averaged are as follows:

|                  |                  |
|------------------|------------------|
| Non-smokers      | 84 per cent.     |
| Reformed smokers | 82 1-3 per cent. |
| Habitual smokers | 76 per cent.     |

In the case of those students who had recently learned to smoke it was found that the time of acquiring the habit was registered by a slump in their marks. Their general average before they took to tobacco had been 85 per cent., while afterward it fell to 78 per cent. The average number of smokes a day indulged in by the smokers as a whole is six. One young man of twenty confessed to having smoked as many as fifty cigarets in one day. This young man, as a result of the investigation, quit the habit and in the following period of six weeks his marks came up 10 per cent. on the average.

The boys who are doing the best work in school do not take to smoking. The average grade of ten ranking highest is 90.9 per cent. None of these use tobacco. The average grade of the ten smokers who stand highest is 78.9 per cent. Probably the really able and ambitious boy knows better than to dissipate his energies in this way. The habit seems to fasten itself on the less capable and those of average ability.

When a boy's natural capacity is such as to admit of his making a grade not much



above the passing mark, smoking proves fatal to his educational progress. Such a boy fails in his work as soon as he takes to smoking and presently drops out of school. The habitual smoker was seldom found to be capable in the sports and games of the school. Thus there is nothing in athletics to hold him in school; and when he finds himself a failure in class-work as well, he abandons the attempt to get an education.

The most striking figures which the investigation disclosed are here summarized:

| Number  | Average Grade |
|---|---------------|
| 77 boys who have never smoked                     | 84.5          |
| 24 boys who have quit smoking                     | 80.5          |
| 55 habitual smokers now in school                 | 76            |
| 45 habitual smokers who have recently quit school | 69            |

About half of all the boys in the high school learn to smoke. Of these a third learn before entering. The others learned in over 90 per cent. of cases during the summer vacation. Many of them took up the habit to kill time while engaged either

as caddies at the golf clubs during the waits between service, or as ushers at Ravina Park during intervals between concerts. Probably one-third of the boys smoke cigars. Those who have had the habit a long time smoke pipes. The boys are not made sick by the tobacco; but all acknowledge that it is harmful.

In seeking reasons why high-school boys so frequently fail in their work and why they drop out of school in such large numbers, school men have probably not given sufficient consideration to the extent and evil of the use of tobacco among students. During the period of growth when there is often a general break-up of the nervous and physical organization of adolescents, and when the heart is so often irregular in its action, the use of tobacco is particularly injurious. Its baneful effects are immediately apparent in loss of mental, moral and physical tone. By it the boy is unfitted to succeed either at work or at play.—*The School Review* (Nov., 1912).

## The Use of Tobacco—A Personal Letter to Young Men\*

BY WINFIELD S. HALL, PH. D., M. D.

Professor of Physiology in the Northwestern University Medical School, Fellow of the American Academy of Medicine,  
Member of the American Physiology Society

THERE are two reasons why I feel justified in addressing to the young men of our great republic a personal letter upon the subject of tobacco. In the first place, I have been associated with young men for many years in several institutions of learning and have come to know the young American in general, and several thousands of them in particular. In the second place, I have had personal experience with tobacco, and am very familiar with its effects upon the system, from having experienced all of its pleasures and many of its objectionable features. My readers will pardon me if I detail to them some of my personal experience with tobacco.

Beginning in my twenty-fifth year, while a medical student, I smoked one cigar daily for a period of about two years. I have always studied my own physical and mental conditions, and began to observe the effect of the tobacco upon me. I came to notice from day to day that during the smoking of the cigar there was a perceptible change of mental attitude toward my work and toward things in general. I would begin a cigar with a mind all alert, ambitious to get at some work that needed to be done.

\*Reprinted by special request. Reprints five cents.

After a half-hour of watching the smoke curl up toward the ceiling I was conscious of a falling off of mental activity, and unless the work was imperative, I usually ended up by taking a half-hour stroll down Michigan avenue, to be entertained by a glimpse of its equipages and its people. I was conscious of a sort of "don't care" mental attitude toward things in general. I have never for a moment doubted that my change in mental attitude was to be attributed solely to the effects of the nicotine. I believe, in the light of subsequent observation, that it is just this effect of tobacco which makes it especially pleasing to people. If I failed to have my after-dinner cigar, I missed it so much that I woke up to the fact that I was slowly but surely forming a "drug habit," and through my medical studies I knew that a drug habit, whether for morphine, cocaine, alcohol, or other narcotic or stimulant, is harmful to the system in direct proportion to its use, and I knew that without exception all of these drugs enslave a person by gradually undermining his will power; the more one takes the less he is able to stop. When I realized the situation, I stopped. For several years subsequent to the period referred to above, I smoked an occasional cigar. Each cigar

produced again the feelings which made me discard its habitual use.

#### THE PRESSURE OF COMPETITION

The young men of today are subjected to certain conditions which are less favorable to rapid advancement and facile success than were those which existed in the time of our grandfathers. In their time, great areas of our country were being settled and developed by pioneers. There was a dearth of men in all lines of activity. Consequently competition was slight as compared with the present conditions, when a notice in an evening paper—"Accountant Wanted"—brings a whole room full of anxious applicants and a hundred letters of application. The professions are all crowded; every line of business is over-full; competition is intense. To succeed, the young man must either be exceptionally capable by natural endowment, or he must use to the best advantage his average abilities.

#### SMOKERS ADVISE AGAINST HABIT

Before entering the competition, which is society's balance in which every aspirant for success must be weighed, suppose a young man seek the advice of his elders as to what he can take or do to make his chance for success more certain or to make the success more complete. If he ask his father or grandfather, do you suppose he will be advised to begin the use of tobacco or opium or alcoholic beverages? If he ask a physician, will he be advised to begin the use of some drug—as nicotine, morphine, cocaine—which will blunt his sensibilities, take the edge off his alertness, and make him careless if his tailor's bill is unpaid? If he ask a lawyer, will he not be told to live strictly within his income and never to assume obligations which he cannot meet on the day and hour of their maturity? If he ask his spiritual adviser, will he not be enjoined to conserve and to cultivate every power of body and mind? These powers are the capital stock of a young man. Knowingly to decrease the value of efficiency of one's capital is recognized by all men as a very poor business proceeding. The young man may remind us that his father and his grandfather, his legal advisor, his physician, and his pastor all smoke, even though they all with one accord advise young men not to follow their example. If these men just referred to have secured a measure of success, it was not because of their use of tobacco, but in spite of that habit. *It is usually more safe to be guided by the precept of our advisors than by their example.*

Though many professional men use tobacco, I have yet to hear the first one advise a young man or boy to begin its use. If asked whether they would advise a young man to begin the use of tobacco, they uniformly answer, "No." Most men who use tobacco regret that they ever formed the habit, but make no effort, or at best only ineffectual effort, to stop it. This is the universal experience with a drug-habit, whether the drug be nicotine, alcohol or morphine.

#### A HANDICAP TO THE RACE

Let us be frank in this discussion. We want the truth, the whole truth, and nothing but the truth. It is universally admitted by even the staunchest defenders of tobacco that it is harmful to the young and growing individual. Full growth and physical maturity is hardly reached before the age of twenty-five. Suppose that a young man begins at that age to smoke one cigar after each meal. Will it injure him physically or intellectually? I believe that there will be no profound disturbance of the health and no marked abatement of intellectual activity under the conditions just stated. This will depend, of course, largely upon the individual; but the average man will not be markedly injured. The question which the young man of twenty-five now asks is, "Why should I not smoke, then?" The most loyal friends of tobacco do not for a moment contend that tobacco in any form is beneficial. The most that can be said for it is that it gratifies certain of the senses.

Let us discuss briefly *this question of sense gratification*. There are five senses. The sense of touch, of smell, of taste, of hearing, and of vision. Animal organisms in general, including man, are endowed by nature with these senses for particular purposes; for protection from danger, for the discovery and selection of the proper food, drink and air, and finally for increasing the happiness or well-being of the race. The use of these five senses in the pursuit of any or all of these objects always results in their higher development. The exercise of any power or attribute of the body in a legitimate use gives the animal pleasure, exhilaration, and a consciousness of gratification. This experience of pleasure is nature's compensation for activity. Man has become very ingenious in devising means for sense gratification. It may be stated as a *general principle limiting sense gratification that those forms which benefit the individual benefit the race, especially posterity, while those forms which do not*



*benefit the individual injure the race.* How will the useless gratification of sense injure the race? By adding to the moderate influence of heredity the very strong influence of environment; the two factors working together *to make the following generation less resistant to temptation.*

Students of humanity and society tell us that the race is more important than the individual, and that the great problems of society are those which deal with the comfort or well-being of the race. If this be true, it must follow that *any act which benefits the race is legitimate and to be encouraged, while any act which injures the race is illegitimate and to be discouraged.*

If we accept the premises, it leads us inevitably to the conclusion that even the moderate use of tobacco by adults is to be discouraged, though we view the question from the standpoint of the physical effects alone. If we were to bring in questions of ethics, of "the greatest good to the greatest number," of economy, etc., we would be repeatedly led to the same conclusion, namely, that *the moderate use of tobacco by the adult is to be discouraged.*

#### TOBACCO UNDERMINES SUCCESS

I have never yet met a young man or boy who did not wish to succeed in life. Success in life, in these days of strong competition, means: Honesty, industry, temperance, economy. The boy or young man who has all of these, with good health, must succeed, while if he lacks any of them even a moderate success would be impossible.

To reach his highest success, a young man should be honest, industrious, economical, and a total abstainer. Such a young man is worth more than his weight in gold to a business house, if he stands the tests to which all new employees of a great and successful house are subjected. No young man need think that some special "pull" will shield him from these tests, or from the close observation of the men who manage the interests of the house. When he least suspects it he is being tested in each and every point enumerated above; he is being weighed in the balance. The history of New York, Philadelphia, Chicago, and of every other great commercial center in the world, will demonstrate beyond a shadow of doubt that *it is not the man with a "pull" who makes history; it is the man with a push.* The reason is not far to seek. The man with a "pull" depends upon the good will, the forbearance, the thoughtfulness, and frequently, the unselfishness, of others, while the man with push depends

upon his own abilities and his own energy. The young man with push may be slower in getting a position, but once he is employed he will be retained by a business house, while dozens of young men with "pulls" will have been taken on trial, tested, and passed on to other fields or retained in subordinate positions.

Tobacco does much to undermine the success of young men. Why? Because it is the entering wedge of two lines of dissipation, either of which may defeat success. The first line is the dissipation of money for things unnecessary. The second line of dissipation is that of sense-gratification. One uses tobacco partly because of its flavor and partly for the sedative action which it exerts upon the nervous system. It is just this sedative effect which steals away a young man's vigilance and alertness and handicaps him in the struggle for success. The use of tobacco paves the way to other dissipation by requiring a compensating stimulant to overcome its sedative effect and by making the common wholesome food taste insipid and flat. A vast majority of drunkards were smokers before they were drinkers. The mental attitude and lack of resistance which permits a man to smoke is likely also to permit other forms of dissipation more destructive in their influence.



THE celebrated musician, Liszt, was in the habit of smoking a Havana cigar every day. When he was preparing for a journey, his valet would put into his valise as many cigars as the number of days he was to be away. One day he set out for Rome, where he intended to remain a number of months. At the port of entry the customs officials asked him if he had anything in his valise to declare, and in a moment of absent-minded-examined, however, and there were found a examined, however, and there was found a hundred cigars which were confiscated and Liszt was compelled to pay a fine of 500 livres. Through the offices of a friend in Milan, the fine was subsequently remitted and the cigars returned, but Liszt refused them. The embarrassment of the incident led him to swear that he would never smoke again, in order to avoid any after repetition of the occurrence. After he became an abstainer from tobacco, he found that his health as well as his talent was benefited by the change, although he had previously been only a moderate smoker.—*La Clairiere*, Nov. 17, 1912.

## To Smoke or Not to Smoke

BY E. L. TRANSEAU

**I**F THE answer to the question, to smoke or not to smoke, could always wait until the questioner become old enough to fully appreciate the reasons for and against, there would be fewer smokers.

But the question comes usually to the young boy who gives no thought to reasons, but merely follows blindly his imitative instincts. Once the grip of the narcotic craving is upon him, reasons have little chance.

Many of the strongest reasons are, moreover, difficult for the boy to comprehend at the age when smoking makes its strongest appeal to him.

"All the fellows smoke, why can't I?" or "Father smokes, why can't I?" are to him convincing arguments.

The boy can be told that when father began to smoke, less was known about the effects of tobacco than is known today, just as less was known when father was a boy about the dangers of sleeping with closed windows and allowing flies on one's food.

If the boy is ready to hear what his father did not know when he began to smoke, there are some definite facts that may be presented simply enough to be grasped, especially if he has learned in school something of the body processes.

Let him find his pulse at the wrist and learn that what he feels is the throbbing of the artery that expands slightly with each wave of blood propelled from the heart. Let him note the absence of pulse in the veins and understand that the artery must be highly elastic in order properly to expand and contract with each sudden pressure of blood which the heart beat forces into it.

If the walls of the arteries were rigid, like a glass tube, they could not yield to the pressure of the blood waves. They are elastic like a very soft rubber tube. Sometimes the arteries are less rigid than at others. The variation in rigidity or "tension" is under control of the nerves.

Tension may be illustrated by letting one arm lie, relaxed upon a table. With the other hand placed upon the biceps muscle of the relaxed arm, let an object be placed in the hand upon the table and the grasp upon it be gradually and strongly tightened. The other hand upon the biceps will feel the increasing tension of the muscles.

As the will directed the muscles of the arm to increase their tension, so influences

are sent out over nerves that connect with the walls of the arteries to increase or lower their tension. But we are not conscious of these influences nor of the changes in the walls of the arteries.

The tension of the arteries can be accurately measured by an instrument adjusted to the arm which shows the strength of the arteries' pressure against it. The process is called taking the "blood-pressure."

By means of this instrument it is found that certain drugs raise and other drugs lower the blood pressure. That is, they increase or relax the tension in the walls of the arteries for a longer or shorter time.

Tobacco contains a poison, nicotine, which excites for a time the nerves that control the arterial walls and causes them to contract, thus raising the blood pressure. When this effect wears off the arteries and the blood pressure falls.

There are other influences that cause a rise and fall of blood pressure, and if it does not occur too often, no great harm is done. But if day after day and year after year the arteries are subjected to an abnormally frequent strain of high pressure, they undergo changes which make them permanently stiff and unyielding, when they should be soft and elastic. Such a condition affects the heart, for the blood it sends out instead of meeting a yielding tube meets an unyielding one which tends to force the blood back upon the heart.

Different disorders of the heart and circulation may arise from this changed condition of the arteries. One of the most distressing is *angina pectoris* or spasms of the chest. It is not only intensely painful but dangerous, as it may end in sudden death.

The changes in the arteries may cause troubles in other parts of the body, such as dim vision or color blindness. If these are not allowed to go too far before a physician is consulted, his order to stop the use of tobacco may end in recovery of sight.

A normal life should continue at least seventy or eighty years, with some degree of working ability to the last, because work is an important factor in the enjoyment of life. The years from forty to sixty should be the ones of greatest usefulness, of best service to others, and highest joy and satisfaction in worthy achievements.

But these are the years when the slowly accumulating effects of tobacco and alco-



holic habits begin to show themselves. The ability to do, that should have come from the preceding years of practice and experience, is not what it might have been, and the user is robbed of the joy and satisfaction that the higher qualifications he might have had would have brought him.

It is also to be considered that the demands upon physical and mental strength increase with the refinements of our arts, industries, commercial and social relations. The halt and maimed will have less chance in the future than they have had in the past to make good on the plane of the coming higher ideals.

The Boy Who Smokes

THE following statistics, recently secured by H. L. Smith, Superintendent of the Bloomington, Indiana, schools, and based upon the statements of the pupils themselves (approximately 950) as to their use of tobacco, are so significant in their revealing the high correlation between the tobacco habit and the character of school work, that they should be given wide publicity.

RETARDATION

| Grade        | Av. Age<br>Smokers | Av. Age<br>Non-Smokers | Excess Age<br>of Smokers |
|--------------|--------------------|------------------------|--------------------------|
| First        | 9.17               | 7.58                   | 1.59                     |
| Second       | 9.96               | 8.51                   | 1.45                     |
| Third        | 10.68              | 9.36                   | 1.32                     |
| Fourth       | 12.6               | 10.55                  | 2.05                     |
| Fifth        | 14.22              | 12.21                  | 2.01                     |
| Sixth        | 13.62              | 12.42                  | 1.20                     |
| Seventh      | 14.67              | 13.32                  | 1.35                     |
| Eighth       | 15.12              | 14.65                  | .47                      |
| High School. |                    |                        |                          |
| Ninth        | 16.47              | 15.55                  | .92                      |
| Tenth        | 16.75              | 16.17                  | .58                      |
| Eleventh     | 18.                | 17.27                  | .73                      |
| Twelfth      | 17.55              | 17.22                  | .33                      |

SCHOLARSHIP (LAST SEMESTER)

High School—

(a) Non-smokers failed in 10 per cent. of their work.

(b) Occasional smokers failed in 18.7 per cent. of their work.

(c) Habitual smokers failed in 29 per cent. of their work.

Grade Schools—

(a) Average grade of non-smokers—*Good.*

(b) Average grade of smokers—*Barely passing.*

DISCIPLINE

High School (no data here from Grade Schools)

|                    | Number | Number<br>Dis-<br>ciplined | Per cent.<br>Dis-<br>ciplined |
|--------------------|--------|----------------------------|-------------------------------|
| Habitual Smokers   | 17     | 12                         | 70                            |
| Occasional Smokers | 29     | 8                          | 27                            |
| Non-Smokers        | 103    | 9                          | 8.7                           |

CONCLUSIONS

- 1. Smokers are distinctly older than non-smokers, having failed in their work much more frequently.
- 2. Smokers are doing distinctly poorer work than non-smokers.
- 3. Smokers are disciplined much more frequently and for more serious offences than non-smokers.—*United Presbyterian* (March 20, 1913).

THE late King Edward had what is known as a smoker's throat, and this and the congestion and thickening due to that cause, combined with the loss of elasticity in the lungs, made it increasingly difficult for him to clear his chest. The strain thrown upon the heart by the obstruction to the passage of the blood through the lungs caused by the collection of secretion in the bronchial tubes had its natural sequel in dilatation of the right ventricle, and the actual cause of death was heart failure due to the increasing difficulty in the pulmonary circulation. It was, in short, a case of a type seen every day in thousands of elderly persons. The cause of death in such cases is purely mechanical, the action of the overladen heart being gradually stopped by increasing resistance in the lungs.—*British Medical Journal* (May 14, 1910).

A MATTER worth the attention of the health authorities is afforded by the custom among cigar-makers of biting off the tobacco at the end with their teeth and finishing the cigar by plastering down the outside leaves with saliva. We cannot say how extensive this custom is, but from our acquaintance with cigar-makers it appears to be not uncommon. The excuse given for this unsanitary method is that, while the managers do not actually demand it, it is practically impossible to finish a cigar to meet the demands of the foremen without resorting to it. The practice, if generally known, ought to diminish the sale of cigars on esthetic consideration alone, to say nothing of the very obvious danger of the transmission of disease—tuberculosis, for example, which is quite prevalent among cigar-makers. The practice is injurious not only to the customer but to the workman as well. The frequent occurrence of functional stomach disease, among them (chiefly hyperchlorhydria) is at least greatly favored by this practice.—*Editorial in the Journal of the American Medical Association* (Sept. 17, 1912).

## The Publishers and Tobacco

BY THE EDITOR

“**D**ISCOURAGING? Interfering? Not a bit of it. It was most helpful and encouraging to receive a message from one of our active subscribers calling attention to an objectionable feature in one of the advertisements in our last issue.”

So runs the heading of a half-page advertisement in one of the current monthly exchanges. It continues:

“Oh, Well! We’d just as soon tell you what the objectionable feature was. It was the portrayal of a man lounging comfortably in his favorite chair at home smoking a tobacco pipe. Now, no matter what you or I think about the use of tobacco, there is no questioning the fact that it is best for our magazines to refuse to allow anything in any way promoting the use of tobacco to appear in any of our advertisements.

“So, we have removed the pipe from the advertisement and are going to censor our advertising columns still more carefully in the future. . . . Help improve your magazine by reading the advertisements and sending helpful suggestions to us.”

The power of suggestion is keenly appreciated by advertisers. The author of an advertisement in a recent daily representing an attractive woman holding a glass of ——’s beer saying “Why, I thought I didn’t like beer” understood the psychology of appeal to a possible new class of customers. The tobacco advertisement appeals to nearly all phases of human enjoyment. Its subtle claims and arguments help entrench the use of tobacco especially among youth to whom special inducements are made.

But the matter-of-fact reference to or representation of the smoking habit in general advertisements and in literature have even more far-reaching effect in maintaining the tobacco habit.

The clothing house shows a group of attractively and stylishly dressed young men, and, apparently as an essential feature of good grooming, the cigar appears between their fingers.

The manufacturer of the easy chair or study lamp seems to feel the pipe or cigaret necessary to put man at his ease in his library.

The front cover illustration of the March number of one of the popular low-priced magazines was of a girl smoking a cigaret.

The otherwise charming pages of an American essayist are fairly redolent with tobacco.

The novels are often worse. Two have come to the writer within a month in which not only the young men but the young women were smoking. An English social novel represents an otherwise high-minded woman engaged in social settlement work, as whiling away a leisure hour with a patrician cousin, smoking as they talked.

Examples might be indefinitely multiplied of this steady emphasis on smoking (and drinking) habits in current literature, and its inevitable tacit influence on the mind of the reader in making a dangerous habit a matter-of-course part of individual and social life.

No one would miss this tribute to the tobacco habit. Its absurd superfluity was wittily shown recently by substituting in a few pages of a popular novel a glass of water for the pipe or cigar whenever the latter were mentioned.

It is certain that this silent kind of education will not disappear of itself. The publishers quoted above recognized that this is one of the habits better not fostered even indirectly and regarded a suggestion to that effect as a welcome sign of interest in the welfare of their publications. Others might also if the matter were brought to their attention properly. Indeed some of those who are trying to deal with the youthful cigaret habit are already registering their protest individually and unitedly.

One makes it his practice, when tailors, in soliciting his custom send pictures of fashionably dressed men carrying cigars, to courteously advise the merchants that an advertisement with this feature, because of its educational influence, does not commend itself to him.

The Iowa Public Welfare League of Des Moines is making a definite campaign against advertisements of the cigaret in current magazines on the grounds that such advertising “gives the evil admission into the home on a respectable footing,” and that “parents who subscribe for such periodicals invite their boys to smoke cigarets. Refuse to subscribe for periodicals that advertise the cigaret and you hit the evil a crushing blow.”

Other tactics are being advised this year by the National Woman’s Christian Tem-



perance Union. This asks for 10,000 persons to unite in the month of May in courteously protesting to editors of popular magazines in whose columns appear fiction depicting the smoking man or woman. The protest is to be based on the ground that

such references "add nothing to the interest and are bad education for our young people."

Nothing is trivial which has to do with safeguarding the physical and moral welfare of youth.

## Class-Room Helps

Conducted by Edith M. Wills

### What the Tobacco Habit Costs

*In Money.*—In the United States the people spend for tobacco 325 million dollars yearly. If people spend their money in this way, it means that they will be compelled to go without food, clothing, furniture, books, music and other things that for their comfort and richness of life they ought to have; it means millions of extra years of labor for a people who are already overworked.—Professor Ritchie.

Let the boy reckon the probable cost of the habit yearly and up to fifty years of age; what these sums would purchase; how many years' salary it would represent and also the probable curtailment of earning power if the cigaret habit is begun early.

*In Growth.*—The use of tobacco, particularly by youths, tends to impair appetite and digestion, to decrease lung capacity, to impoverish the blood, to injure the brain and nervous system and its control of the heart and vital organs and to curtail the hours of restful sleep. How can any boy expect to attain his full stature in the face of such handicaps?

"The intangible signs of chronic tobacco poisoning are, in boys, impaired physical growth and impaired respiratory ability, and in older men, a slowly developing hardening of the arteries."—*Jnl. of A. M. A.*

*In Muscle Power and Precision.*—Prof. Lombard found that five cigars smoked on each of two four-day periods, with a similar non-tobacco period between, averaged to lower the working power of the muscles 41 per cent.

"Tobacco is forbidden athletes in training. Cigarets will surely kill the baseball pitcher's speed; they shorten the flight of the football player's punt; and the tobacco user's muscles weaken and fail when the crowning effort of the race comes off."—Prof. Ritchie. (See also *Journal* pp. 47, 48a).

*In Scholarship.*—(See pp. 87-8, 92).

*In Business.*—Note firms and corpora-

tions which refuse to hire cigaret smokers at all.

*In Morality.*—Of 278 boys in the Illinois State Reformatory, Supt. Torrance found that 92 per cent. were cigaret smokers at the time they committed the crimes for which they were sent to the reformatory; 85 per cent. of them were "cigaret fiends". He says:

"I assert unhesitatingly and without fear of successful contradiction, that the use of cigarets affects the nervous system, weakens the will power and destroys the ability of the boy to resist temptation and because of this, he easily falls a victim to those habits which not only destroy the body, mind and soul, but irresistibly lead him into a violation of the laws of his state."

*In Fire Losses.*—Edward F. Croker, Ex-Chief, New York Fire Department, says that from twenty-seven years' observation of fires and their causes, he has found that a very considerable percentage of fires have been caused directly by cigarets. Fire Chief Johnson says that in 1911, 3,332 fires, or about one in four of all the fires requiring the apparatus, were caused by carelessness with matches, cigars and cigarets and that these preventable fires resulted in heavy property loss. Not infrequently fires set by careless smokers in forests, in mines and in factories and other buildings have also caused a heavy toll in human lives.

*In Discomfort and Disease.*—These and even death follow the "pleasures" of tobacco. (pp. 85-6, 90, 91, 92, 96).

*In Mental Health.*—"It is impossible to state how frequently deaths are caused by the over-use of tobacco. Certain it is that not infrequently young boys and young men, generally cigaret users, get into such mental conditions as to become irresponsible criminally, mentally worthless, and even insane."—*Jnl. A. M. A.*

## Training Boys and Girls

**A**MONG the agencies for the prevention and suppression of cigaret smoking among boys, the Anti-Cigaret League of America (Chicago) Lucy Page Gaston, founder and superintendent, is an efficient factor, issuing attractive literature and various other helps, and keeping trained workers in the field.

From the Eastern Division the energetic field secretary, Rev. Manfred Welcher, has been able to reach about 800 audiences in four different states, securing the co-operation of many influential individuals, educational institutions and societies.

In the West, among other important pieces of work, the superintendent was able to secure entrance for another field secretary of the League, Mrs. Eleanor Gridley, into the schools of Chicago. Some 80,000 children have been reached and many influenced for good.

### YOUTH AND ITS ENEMIES

UNDER the title above, Mrs. Gridley discussed such enemies of youth as discourtesy, idleness, profanity, untruthfulness and dishonesty, sketching vividly the careers of boys who indulge in such habits. Do such boys smoke cigarets and does the habit open the door to any or all of these bad habits?

About ninety per cent. of the boys brought into the courts for judicial censure or punishment and many of the boys in insane hospitals are cigaret smokers.

The physical disabilities and mental deterioration attendant upon continued cigaret smoking were forcefully illustrated by facts. Boys beginning the habit early generally become "quittuates" before finishing grammar school instead of graduates of high schools and colleges.

From the standpoint of business success, smoking is unwise for business men like, for instance, Marshall Field and Co., say: Boys who smoke cigarets are untruthful, dishonest, unreliable. We don't want them.

As the climax of the talk she told graphically the story of the boy who entered young manhood without a single vice; of his environment of poverty and his lack of education; of his care of his sick mother and his promise to keep pure and to strive to become great; of the way in which he honored his mother's memory. That boy, Abraham Lincoln; his greatest traits, courage, integrity, faithfulness, in a word, dependableness.

This then, rather than cigaret-spoiled

youth, is the type for our boys to emulate; these are the ideals they must strive to reach.



**I**N New England, the Massachusetts Anti-Cigaret League (204 Equitable Bldg., Boston), Mrs. Elizabeth R. White, Secretary, is doing excellent preventive work, largely among school children of whom several thousand have signed the "Declaration of Independence" from King Nicotine, the pledge being made only after reflection, with the approval of the parents and renewed annually though it covers the period of minority. Some important anti-narcotic legislation has also been secured and the society has issued some exceedingly attractive literature, buttons, etc. The new post-cards in colors are especially helpful and convincing. (See advertisement.)



**I**T IS my experience, and I could confirm it by innumerable proofs, which leave me without a shadow of a doubt, that of all conceivable methods of fighting the drink evil, the personal example of total abstinence is by far the most efficacious. When, twelve years ago, this became clear to me I did not hesitate to seize this weapon, and up to this day I have never for a moment had reason to regret that I did so. I have to thank total abstinence not only for its beneficial results in regard to my own powers of continuous work, but also for the satisfaction that comes from being consistent, and from seeing the unmistakable effects of the influence of my example in the struggle against alcoholism.—*Dr. E. Krapelin, University of Munich.*



Prof. Wm. A. McKeever, of the Kansas State Agricultural College, publishes a set of bulletins on boys and girls as follows:

- No. 1. *The Cigaret Smoking Boy*
- No. 2. *Teaching the Boy to Save*
- No. 3. *Training the Girl in the Home*
- No. 4. *Assisting the Boy in the Choice of a Vocation*
- No. 5. *A Better Crop of Boys and Girls*
- No. 6. *Training the Boy to Work*
- No. 7. *Teaching the Girl to Save*
- No. 8. *Instructing the Young in Regard to Sex*

These are sent free for 2 cents postage each, or ten or more of any one at 1 cent each. Address Wm. A. McKeever, Manhattan, Kansas.



## Getting Used to Tobacco

BY E. L. TRANSEAU

THE idea is quite common that it is only while one is "learning" to smoke that tobacco harms him, that as soon as he gets "used" to it he will have no further trouble.

Just what the process of "getting used" to a poison really involves is not wholly understood even by physicians, and it is the opinion of some who have given attention to the subject that the tolerance for tobacco supposed to become established after a while is by no means as complete as it is thought to be.

The symptoms of extreme sickness, nausea, pallor, cold perspiration, that tell of the poisoning when tobacco is first used, are due to the excitability of one part of the nervous system toward the nicotine contained in the tobacco. This is the sympathetic nervous system, sometimes called the "vegetative" system because it presides over the nutritive processes. The excitability becomes deadened, or blunted with repetitions of the dose, but it is not entirely lost. Some irritability is shown by movements (peristaltic) in the alimentary canal after smoking, by the habitual user. If the usual amount is increased about three times the same symptoms may be produced in the old smoker as in the novice. The fatal dose is not much larger in the non-smoker than in the smoker. This is quite different from the tolerance that may be established for opium and some other narcotics, where the fatal dose for an habitué is very much larger than that for a beginner.

Even when the smoker is supposed to have gotten thoroughly used to the poison in tobacco the excitability may return if the general system becomes weakened by an acute sickness or by an accident. Alcohol also tends to weaken the tolerance for tobacco.

There are many accustomed smokers who if they exceed a rather moderate amount are likely to feel the effect of it. There may be tremor, sleeplessness, indigestion, or like symptoms. The same may be true also of those with weak hearts or weak nerves, or other special weakness, or of those leading sedentary lives, or living in a smoke laden atmosphere.

There is indisputable evidence that other parts of the nervous system do not lose as much of their susceptibility toward tobacco poison as does the vegetative system. Repeated experiments have shown that nicot-

tine continues to cause a rise in blood pressure in the old smoker each time he returns to his pipe or cigar. He is not conscious of it because no such alarming sensations accompany the rising of blood pressure as are manifested when the "vegetative" system is disturbed. But the unerring mechanical sphygmograph—the instrument which measures blood pressure, shows the rise, and also the subsequent fall, augmented, it is thought (Dr. Emerson Lee) by other constituents of tobacco besides nicotine, which tend to cause a fall of blood pressure from the start, but which are overpowered for a time by the constriction due to the nicotine. It is the cumulative effects of these repeated changes in blood pressure, rather than in accumulation of the poison itself in the system, that sets up old-age changes in the arteries.

Thus we have another illustration of the deceptiveness of external appearances. Outwardly the man has got "used" to tobacco while inwardly are proceeding the slow subtle changes that are leading to that all comprehensive and uncomprehended phrase, death from heart failure.



*(Concluded from inside front cover.)*

quences ensue, in other words, he becomes a chronic alcoholic.

I would not be misunderstood. I know many honorable men who drink without becoming drunken and without laying themselves open to charges of neglect of duty, men who would vigorously protest against being looked upon by their fellow citizens as drinkers. Nevertheless, the sharp eye of the physician and other keen observers detect in them a certain physical clumsiness, a certain dullness of the senses and of the mind, a certain indolence and indifference to political, social and ethical questions, which can only be explained as light degenerative symptoms resulting from chronic alcoholism.—*Translated for the SCIENTIFIC TEMPERANCE JOURNAL.*



DR. HARVEY W. WILEY says that "a man has not the shadow of a right to inflict unwholesome smoke and his vile breath on the community at large. There should be a strictly enforced law prohibiting smoking and chewing in public places, or on the cars where other persons are obliged to be." Cases are on record where delicate wives and children have suffered severely from tobacco poisoning due to constantly breathing a smoke-laden atmosphere in the home.

# Comparative Scholarship and Deportment of High School Non-Smokers and Smokers

## I Scholarship—Average Rank\*

Boys Who Have Never Smoked (77) 84.5%

Boys Who Have Quit Smoking (24) 80.5%

Habitual Smokers In School (55) 76%

Habitual Smokers Who Dropped Out (45) 69%

## II Deportment—Percentage of Boys Disciplined†

Non-Smokers 8.7%

Occasional Smokers 27%

Habitual Smokers 70%

\*The average grade of the 10 boys ranking highest is 90.9% (all are non-smokers); the average grade of the 10 smokers ranking highest is 78.9%.

†The habitual smoker was seldom found to be capable in the sports and games of the school."

†"Smokers were disciplined for more serious offences than non-smokers.



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3. **DIAGRAM.** (3 colors) Physical Development and Tobacco. Seaver's Studies at Yale.
4. **DIAGRAM.** (colored) Scholarship and tobacco. Seaver's Studies at Yale.
5. **PICTURE.** Tobacco and Eyes and Nerves. Improvement in Writing in Boy Smokers after cigarettes were stopped (New Zealand School Jour.)
6. **DIAGRAM.** (3 colors) Smoking as a Handicap to College Men in Athletics and Scholarship. Clarke Studies at Clark College.
7. **DIAGRAM.** (2 colors) College Records, Physical and Mental, of Ten Non-Smokers and of Ten Men who began to smoke after entering college. Clarke Studies at Clark College.
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- No. 7. Effects of Alcohol on Memory
- No. 8. Moderate Drinking and the Death Rate
- No. 9. Effects of Alcohol on the Brain
- No. 10. Preventable Disease Due to Alcohol
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SCIENTIFIC TEMPERANCE JOURNAL, - - 23 Trull Street, Boston, Mass.

Rec'd

# SCIENTIFIC TEMPERANCE JOURNAL

— *Continuing the* —  
SCHOOL PHYSIOLOGY JOURNAL

HELP lighten the load!  
Humanity stumbles ahead on its road,  
Urged on o'er the deserts, beset by the goad;  
Men bend under burdens of hunger and care  
And women must suffer and toil and despair;  
Yea, even the children astray in the strife,  
Are bowed by the weight till they weary of life.  
Hark! unto each soul that is hero, not slave,  
How clear sounds the call to arise and be brave,  
Help lighten the load!

Help lighten the load!  
With all of the strength that the heart can command,  
With all of the power of brain and of hand,  
With wills set to sacrifice, struggle, and dare,  
With love that seeks ever each burden to share,  
With unflagging endeavor that stops not to ask  
The length of the journey, the cost of the task,  
Come, sons of the kingdom! Come, children of God!  
And along the dark path by the world's anguish trod,  
Help lighten the load!

—Priscilla Leonard in The Outlook.

*Published at -*  
BOSTON, MASS.

MAY, 1913



## The Point of the Pencil

THE stationary or falling scale of France's population periodically causes concern to her statesmen, investigation by her economists, and furnishes material to the paragraphers. The new president of the French republic heard the other day some plain facts as to an unnecessary waste of lives, serious in view of a declining birth-rate. (P. 102).

ON the other side of the Channel, a physician rises from his study of over one hundred families to bring a new charge of waste of child life, this time against the smoking fathers. (P. 101).

ARE the industrial accident companies and the manufacturers taking sufficiently into consideration drink as a cause of accident? American statistics have not been taken as yet with a view to ascertaining statistically the extent of the coincidence of accidents with drinking habits, but Massachusetts and Minnesota records (P. 99) of the hours of accidents are suggestive in the light of certain scientific facts.

"GERMANY is slow in waking, but when she does, her progress is sure and steady," said a bright German woman a decade ago. A Congress of fourteen hundred people with all grades of officials in attendance, listening apparently with approval to the unanimous opinion of speakers that German children must be taught abstinence from alcoholic drinks, for certainly the period of youth, surely looks like progress in the land of beer.

DRUGGING is a hydra-headed habit, and the subtle trade in cocain that is going on even, or especially, among young people, is fresh evidence that commercialism rather than appetite is chiefly to be blamed for much of this habit. Meanwhile, warnings as to the perils in cocain (P. 99) are in order.

THE push over the precipice into mental disease by alcohol finds new confirmation in the studies of individual families (P. 97) by Schweighofer.

WHAT would you do if you had a thousand dollars? was a favorite dream question of childhood. The thousand became a million as the standards for sizeable fortunes advanced. Now those who long for progress in social betterment could dream in terms of billions (P. 107) were it not that as ever the dream has to be transmuted into the stern realities of personal duty and responsibility.

## Scientific Temperance Journal

Founded by Mary H. Hunt

Single Subscription . . . . . \$0.60 a year

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Clubs of 50 and over . . . . . .40 each

Foreign and Canadian postage \$.10 additional.

Please remit by post office or express money order, draft on New York or Boston, or by registered letter.

CORA FRANCES STODDARD, A. B., EDITOR

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E. L. TRANSEAU, Contributing Editor

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By The Scientific Temperance Federation

SEPTEMBER TO JUNE, INCLUSIVE

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YOU'LL WANT A LOT OF THEM

32 Pages

21 Illustrations

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Prepared by the Scientific Temperance Federation for the Maryland Anti-Saloon League in its great \$3,000 Prize Essay Contest, Baltimore.

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100 Copies \$3; Prices in larger quantities on request.

**The Scientific Temperance Federation**  
23 TRULL ST. - - BOSTON, MASS.

OWING to an error on the part of an express company, about half of the copies of the JOURNAL for April were not delivered until after a long delay. This will explain why a part of our subscribers receive with our apologies the April and May numbers together. If any subscriber failed altogether to receive the April number the JOURNAL will be obliged if informed of the fact. As this was the annual anti-narcotic number it was of special value.



"I'd rather be a could-be  
If I cannot be an are;  
For a could-be is a may-be  
With a chance of touching par.  
I'd rather be a has-been  
Than a might-have-been by far;  
For a might-be is a hasn't-been  
But a has was once an are."

# Scientific Temperance Journal

Vol. XXII

BOSTON, MAY, 1913

No. 9

## The Chalice of Courage

By Marie Hemstreet

“**D**RINK of the chalice of courage!  
Pressed to the shrinking lip,  
The dark-veiled fears  
From the passing years  
Like a dusty garment slip.

“**D**RINK of the chalice of courage!  
The mead of mothers and men,  
And the sinewed might  
Of the victor's fight  
Be yours again and again.”



## The Salzburg Investigation of Alcoholic Heredity

**O**N THE western boundary of Austria, enclosed by spurs of the Alps, lies the ancient duchy of Salzburg, a tract of about 2,700 square miles, inhabited by a settled population for many generations.

In summer, tourists come to visit the historic old town, once sacked by Attila, the Hun, but afterwards rebuilt by the dukes of Bavaria with all the architectural beauties of their periods, cathedral, churches, statues, monuments, and the magnificent castle now in ruins overtopping all.

Mining and other industries furnish steady support to the population without the changing conditions caused by immigration and emigration.

Orderly government under the Austrian crown has furnished valuable statistics on matters of health from which fruitful comparisons are possible to a broad-minded, resourceful investigator.

Such an investigator has come forward in the person of Dr. Josef Schweighofer, for many years head of the insane asylum at Salzburg. He set himself the task of investigating from the records at his disposal the causes of the mental diseases that sent patients in increasing numbers to his institution. He became convinced that some injurious influence was at work, impairing the germ cells from which the streams of broken lives flowed into his asylum, and he searched for the source of the injury so that when found it might be avoided.

Dr. Schweighofer pursued his inquiry (3) by two routes: individual family histories, and mass statistics of the whole duchy.

### THREE TYPES OF FAMILIES

In his study of family histories, he found three distinct types: First, Those in which

the first children were tolerably sound, but succeeding ones became more and more weakly and defective until still-births or deaths soon after birth closed the account.

The second type began with still-births or children unable to live, and gradually improved. This course is more like that of normal families, except that sometimes the first-born in a sound family will be slightly inferior to the others, while in every way able to live, and developing into a normal citizen.

In the third type, the series of children showed intermediate fluctuations.

### THREE KINDS OF DRINKING HISTORIES

In studying the various influences capable of affecting the quality of offspring, Dr. Schweighofer found what appeared to him to be unmistakable indications of an injurious influence resulting from alcohol. In the first of the three types of families described, he found that one or both parents became more or less alcoholic as years went on. In the second type, there had been hard drinking before marriage, but afterwards reformation or improvement with corresponding improvement in the condition of the children. In the third type, there were changes in habits midway in the reproductive period with changes at the same time in the health of the children. Charts illustrating a typical family of each class are given.

An example of the first type is that of a drinking inn-keeper whose first child was very nervous; the second, epileptic; the third, never healthy, died at 36. The fourth, fifth and sixth all died soon after birth, and the seventh was still-born.

An example of the second type is that of a commercial traveller who after his



marriage to a healthy woman stopped drinking. The first child was mentally unbalanced and a criminal. The second had some mental disorder, but was cured. The third was normal.

An illustration of the third type was a father who was a hard drinker when married, and continued his drinking for a number of years until he lost his property, so, not having enough money to pay for drink he stopped using it. The condition of the children born during his drinking period was as follows: 1, Suffered from slight mental depression from forty to sixty years of age. 2, Non-viable. 3, Melancholic, ending in suicide. 4, Inefficient, subject to sick headaches. 5, Mentally depressed, accidental death at forty-six years of age. 6, Abnormal, weak-minded. 7, Idiotic. 8 and 9, Unable to live.

Thus far the history is similar to that of families of the first type, a gradual progressive deterioration in the children.

At this time, the father ceased drinking. The next child lived to become a mother but committed suicide during the confinement period. The next began drinking, but became intolerant of alcohol, suffered an accident, mental disorder developed, but he finally recovered. The next child was a drinker but without record of mental disease. The next, the fourth, after the father's reformation, the thirteenth in the series of children was healthy, but intolerant of alcohol.

Then the mother became addicted to drink, and the next two children, the last of the family were both alcoholic and mentally disordered.

So much mental disease would indicate some taint of insanity in the family history, but the parents of both father and mother are recorded as sound, and among the brothers and sisters there is but one case of mental derangement with no case of mental disorder in any of the children of the brothers and sisters. One of the mother's cousins, herself a normal woman, married an alcoholic, and here three children out of eight were mentally deranged, one an idiot, two died young, one soon after birth, and the first child was still-born.

Still another illustration of the third or fluctuating type was that of the woman previously referred to in the JOURNAL who

had three husbands, the first and last sober, the second a drinker. The woman herself was strong and healthy, known to be of a healthy ancestry for six generations. Her three children by the first husband, and two by the third husband were all strong and healthy, but the three by the drinking husband were all abnormal, two were alcoholic and died young, the third a nervous dwarf.

#### INTERVAL BETWEEN CHILDREN SHORTENED

Another fact brought out in the study of separate families was the shorter interval between the births of children in the families of drinkers compared with those of the more temperate families. The normal interval between children indicated by statistics at large is two years. The wife of one hard drinker was taxed by the more or less imperfect development of 22 children during 23 years of married life, ending with her own death. Only six of these children were able to live, and two of them died under ten years of age, two at about 20, and the oldest two during the thirties. The last three were still-born, while thirteen died soon after birth.

#### MENTAL DISEASE EXCESSIVE IN CHILDREN OF DRINKERS

In summing up this account of the study of individual families, Dr. Schweighofer says:

"The study shows that the children of drinkers develop mental disease much oftener than the children of parents who are themselves mentally diseased but not alcoholic. That is, an existing tendency to mental weakness becomes fixed under the effects of alcohol while without it, there may be recovery.

"Seventy-five per cent of the insane patients in Salzburg had notorious drinkers for parents."

The individual statistics show among the children of drinkers a larger proportion of scrofula, rachitis, backward development, more sickness, less physical and mental efficiency. They show also an unusual amount of criminality and moral inferiority.

Dr. Schweighofer's statistical studies of the population of the whole duchy of Salzburg, the JOURNAL hopes to present at another time:—*Translations made for the SCIENTIFIC TEMPERANCE JOURNAL.*



**Why deprive paupers, lunatics, idiots and criminals of the personal liberty of landing upon our shores and grant saloon-keepers the personal liberty of manufacturing them at home?—Illinois Issue.**

## The Peak of Industrial Accidents and Drink

This interesting statement of the possible explanation of many industrial accidents was prepared for use in connection with an effort to secure a law in Massachusetts by which saloons would have been kept closed till 8 o'clock A. M. It was signed by W. Stewart Whittemore M. D., Factory Inspector of N. E. Confectionery Co. and Dr. W. F. Boos, both of Boston. The JOURNAL is indebted to the Anti-Saloon League of Massachusetts for permission to print the statement in full.

IT IS an established fact that intoxicating liquors are the cause of many industrial accidents. The reason for this is not far to seek. Small quantities of alcohol such as would produce no visible signs of intoxication are yet sufficient to interfere with mental alertness. The effect of these small doses upon the consumer is that he is unable to concentrate his mind as closely on his work as when he is free from alcohol. He becomes careless and is apt to take chances which he would not think of taking in his natural condition. The result is that the wage-earner who has a drink or two on his way to work is making himself liable to injury, reducing his efficiency and exposing others to the possible consequences of his reduced mental efficiency.

A well-known French scientist, Grebant, has shown by careful experiments upon animals that when alcoholic beverages are taken into the stomach the percentage of alcohol in the blood supplying the brain increases gradually until it reaches its maximum from  $2\frac{1}{2}$  to 3 hours after the liquor was introduced into the stomach. Many experiments have shown us that in human beings also the brain is most deeply affected by alcohol from  $2\frac{1}{2}$  to 3 hours after drinking.

In this connection it is of great significance that in the first bulletin of the Massachusetts Industrial Accident Board, published in September, 1912, the Board reports that in this state most industrial accidents occur at 10 o'clock in the morning and at 3 o'clock in the afternoon. This is exactly in accord with the report of the Bureau of Labor of Minnesota for the years 1909-1910 which contains a detailed study of industrial accidents in that state. This report gives a chart, showing at what hour of the day the accidents occurred. The "peak" of the curve is at 10 o'clock in the morning and at 3 in the afternoon. In other words, practically three hours after the men started in work they were most liable to get into trouble through lack of attention and carelessness. If the men's carelessness were due to fatigue, the high point of the curve would be reached at the end of the morning—between 11:30 and 12 o'clock—and again at the close of the afternoon's work. But between 11:30 and 12 o'clock in the morning there are only

about one-third as many accidents as occur at 10 o'clock, and at 5 in the afternoon about one-fourth as many as at 3 o'clock. Fatigue, then, is not a satisfactory explanation.

Alcohol is undoubtedly a cause of many of these 10 o'clock and 3 o'clock industrial accidents. They occur from 2 to 3 hours after the men begin work in the morning—that is, at just the time when the drinks taken on the way to the factory are having their most marked influence on the brain. The same thing happens in the afternoon. The alcohol taken during the lunch hour has its greatest effect at 3 o'clock in the afternoon.

In view of these facts it seems reasonable to believe that the 8 o'clock Opening Bill, proposed in the Massachusetts legislature this winter, if enacted, would prevent many of the morning industrial accidents, by making it possible for the men to go to work sober. If the employers of labor would furnish lunch rooms in the factories where the employees could be supplied with coffee or tea to take with their lunches, there would be little inducement for the men to seek the saloon during the noon hour. In this way many of the afternoon accidents might be prevented.



## Cocainism

BY DR. T. D. CROTHERS, HARTFORD, CONN.

COCAINISM seems limited to persons in early and middle life. It appears in two forms: One, the periodic; the other, the continuous.

The periodic form is marked by distinct free intervals in which all desire for the drug is lost. Then a state of unrest and physical and psychic pain comes on, and cocaine is used again for several days or weeks, and then abandoned.

In the free intervals, the mental impression of the pleasing effects of the drug continues, and is seldom overcome by fears of its danger. The person will assert that he will never use it again, but when the paroxysm returns will reason that there is little risk or danger in using it for present relief. Many of these periodic cases suffer from neurotic nerve-storms which precede the use of cocaine.



The continuous use of cocain is seen in neurotics and exhausted persons, who frequently conceal its use and show great ingenuity in explaining any unusual conduct which may follow indulgences as due to other than the real cause. After a time nearly all cocain-takers become continuous users of the drug; then, in the effort to conceal its effects, other narcotics are employed. In this way morphine, spirits, chloral, and many other drugs are taken, and the symptoms become complex and confusing.

The diagnosis of these cases is often very difficult. In a suspected case sometimes the only change noticed is an increased desire for mental and intellectual work, with an unusual satisfaction in all the conditions of life. Close study will show a falling off in the character of the work and the degree of judgment displayed.

If a physician, defects of judgment and diminished recognition of ethical duties appear. If a clergyman or lawyer, his sense of the propriety and the right relation of things suffers; his work is less exact. If an active business man, his former caution and candor are less evident.

Thus in many ways there are mental changes, diminished capacities, and slight failures of the higher brain relations.

A careful study of the symptoms will show a disappearance of the buoyancy at short intervals, and a disposition to go off alone for a time, with a return of self-confidence and elation. The cocainist differs from the alcoholic by his solitary habits, and from the morphinist by delusions of persecution in the later stages.

The feeling of bugs crawling over the skin comes in the later stages, and is a very

significant symptom. The appetite fails and anaemia appears, particularly when other drugs or spirits are taken alternately. The disposition to follow any consecutive work grows less and less with the continuous drug-taking. With these comes a general failure of ambition and will power, and reckless, aimless thought and work.

The cocainist will deplore his condition and make apparently every effort to overcome the diseased impulse, and yet relapse under any circumstances, though he may see clearly the peril of his condition.

There can be no doubt that cocainism is increasing. Its indiscriminate sale, without restrictions, in all drug stores, is one cause. The widespread credulity of its harmlessness in all cases within certain limits is another active cause. As a narcotic or substitute for other narcotics it is an exceedingly dangerous drug. The law should restrict its sale as a veritable poison, and its continuous use should be recognized as insanity, demanding prompt interference and control. Its use in proprietary medicines is a source of peril of greater magnitude than that of any form of opium.

Finally, cocainism has become a most serious drug addiction, whose victims are often physicians and professional men in all circles of life, together with the neurotics and drug-degenerates. There is only one way of escape for these poor drug-victims; that is, to give up everything and make a supreme effort for recovery. With the assistance of some trusted physician, in changed conditions and surroundings and the most favorable circumstances possible, the prospect of permanent cure and restoration is hopeful.—*From Morphinism and Narcomania from Other Drugs.*



## Remember Those Who Are in Bonds

The following paragraphs are taken from two letters recently received from a prisoner in a western state penitentiary whose name and address are withheld by the editor. The ghastly lesson of it all is that there are not less than 40,000 men and women in the prisons of the United States today who if the truth were known are there directly or indirectly through drink.

**I** AM a prisoner in the — State Penitentiary, deprived of my liberty because of the terrible liquor demon. Only for the cursed stuff I would be at home helping to support a sorrowing mother. As I look back over the past, I see myself on that September night two years ago changed from a peaceful, law-abiding citizen to a fiend crouching with match in hand to set the fire which reduced the property of the — Company to a heap of ashes, entailing a loss of over \$9,000. And

who were the losers, people whom I hated and wished to injure? No! they were friends and neighbors.

At the present time there are about 2,400 prisoners here. As nearly as I can find out, about 90 per cent. of the men have been addicted to the habit of drinking in some form or other. I say as I view the past and see what drink has brought me to at the early age of 27, I can do nothing but vow before God to be its bitterest enemy all the rest of my life.

## New Studies of the Smoker as a Parent

FOR some years, physicians in most countries have been commenting on and studying the relation of alcohol to child mortality, premature births, and physical and mental defects. Little or no consideration, however, has been given to the possible effects on progeny of the use of tobacco by the parent. Fleig(1) studied in animals the effects upon the young of inhalations of dense tobacco smoke when the mothers were subjected to it, and found that there was a large number of foetal deaths, and that the live-born young were under weight and lacked vitality. The young of mothers subjected to weak inhalations also showed disorders of vitality and development.

Dr. Herbert H. Tidswell, Member of the Royal College of Surgeons, England, has lately turned a scientific ploughshare into this hitherto uncultivated field of inquiry. (2) He has reached the conclusion from the cases of the 65 non-smokers and 108 smokers whom he was able to study in detail that the use of tobacco by the father results in a lower birth-rate of living children than that among non-smokers, that the wives of smokers have a larger number of miscarriages, still-births and other abnormalities incident to their condition. He found also a higher death-rate among the children of smokers than of non-smokers. As to the ratio between sexes at birth, the smokers had a deficiency of male births and an excess of female births both as compared with the non-smokers and with the sex ratio of the entire country, a condition which he believes indicates declining vitality.

This is a matter which can be settled only by careful studies by many observers in many fields. Dr. Tidswell says, "It is necessary to take notes of the conditions of smokers and their wives and children at every age regarding their mental, moral and physical states. The information thus secured would be of no value unless it could be compared with healthy standard, secured by taking similar notes of married men of all ages who are healthy in all respects and live under similar sanitary conditions and are of the same social states as the others, but differ from them in being non-smokers."

This, then, was what Dr. Tidswell did. He excluded cases complicated by syphilis,

alcoholism, tuberculosis, accident or domestic misfortune. The histories of the two most strictly comparable groups were taken personally in the course of his practice. They refer with but two exceptions to mothers past the age of child-bearing so that this part of the history is complete as to the number and state of children born to each couple, with details of the pre-natal, birth, and post-natal histories of the mother, and of histories of the children to at least the age of five years. As far as possible, the average quantity of tobacco used by the father was ascertained. The "non-smokers" class consisted for the most part of total abstainers from tobacco. A few used it very rarely for some special reason, but so rarely as to be practically abstinent. All were working men, living in the same social conditions in Devonshire.

## WHAT THE STUDY SHOWED

The following summary gives the results of comparing these two groups of families (Classes 1 and 2) who were similar except for the tobacco habit. Class 3 is a small group of 10 families, too small to be fairly comparable, but interesting none the less, as the husband used both alcohol and tobacco.

|                                  | Class 1<br>38 Non-<br>Smokers | Class 2<br>57 Smokers | Class 3<br>10 Alcohol<br>Users and<br>Smokers |
|----------------------------------|-------------------------------|-----------------------|---|
| Birth-rate per 1000 mothers      | 7368                          | 6859                  | 7600  |
| Excess of males per 1000 mothers | 474                           | —                     | —   |
| " females " " "                  | —                             | 473                   | —   |
| Miscarriages " " "               | 394                           | 1035                  | 600   |
| Still born infants " " "         | 210                           | 263                   | 900   |
| Abnormal confinements 1000       |                               |                       |   |
| mothers                          | 83.7                          | 132.2                 |   |
| Abscess of breast 1000 mothers   | 80                            | 263                   |   |
| Mortality among 1,000 living     |                               |                       |   |
| children                         | 153                           | 227                   | 184   |
| Total number of conceptions      | 7972                          | 8157                  | 9100  |

"The records and defects in Class 2 show clearly," says Dr. Tidswell, "that there is some poison at work that is not in Class 1. I invite inquiry and discussion, for I do not consider myself infallible, but these records will, I hope, stimulate other physicians to take family histories in similar lines and publish their results."

Two other groups were studied of non-smokers and smokers which included professional men and a few working men, and from which it was not possible to get full details as to the history of the reproductive period as in Classes 1 and 2.

Here, as before, in the smoking class whether professional or lay laborers, there was a "serious deficiency of male births. In Class 2 the boys born in the families of the smokers were not only fewer in numbers

1. School Phys. Journal, Apr. 1909.

2. H. H. Tidswell: "The Tobacco Habit."



than the girls in the same class, but they had a higher rate of mortality."

#### SMOKING FATHERS CHARGED WITH WASTE OF BABY LIVES

Among non-smokers in Class 1 there was one death before birth to every 12 living infants; among smokers the rate was 1 to 5.

"The excess in the wives of smokers of 694 miscarriages and still-births to 1,000 women is so large," says Dr. Tidswell, "as to indicate the presence of some strong poison in the parents that has the power to destroy embryonic life. . . . My critics may assert that Class 2 [smokers] is not a fair sample of the general population, but this objection will not hold good, for the rate of fertility was rather above the average of the general population, and every man in the series was a fair specimen of a self-dependent citizen, maintaining himself and his home by honest toil and acting in a rational way, aside from the use of tobacco.

"I think the inhalation of tobacco smoke by mothers sitting among smoking is suffi-

cient to cause fatal poisoning to the foetus. [Fleig found this to be true with animals.—Ed.] It has been proved that women who work in tobacco factories are all especially prone to abortion."

Comparing the non-smokers' rate with the estimate of Dr. Jewett, that there is one foetal death to every six live-born infants in general population in the United Kingdom, Dr. Tidswell estimates that there were in 1909, 95,484 of these foetal deaths in excess of what the number would be if the population were all non-smokers. In other words, he charges that smoking fathers of England with responsibility for the unnecessary waste in one year of 95,484 infant lives through the poisonous action of their tobacco.

Whether further observations confirm or not the conclusions of Dr. Tidswell, he himself recognizes that this is only the work of a pioneer. But it is a thought-provoking study, many details of which could not even be referred to here and it challenges further serious investigation.



#### France's Race of Cradle and Coffin

"**F**RANCE," said a lecturer recently, "is the nation where cradles and coffins are running neck and neck with the coffins gaining the lead."

One reason for this melancholy fact which is appalling thinking men and women in France was forcibly impressed upon the new president of France, M. Poincaré, during a recent official visit to St. Antoine Hospital. When he arrived at the clinic of Dr. Lucien Jacquet, accompanied by a full suite of officials, *La Croix Bleue* relates, the physician had before him an alcoholic subject, a man with dull, emaciated face.

"This is a case of alcoholic cirrhosis," said the surgeon, "and if you will permit me, Mr. President, I will show you some figures of other alcoholic cases collected by my assistant, Dr. Lebar.

"From the first of May, 1912, to the first of February, 1913, we have questioned 308 patients concerning their consumption of wine and of spirits, and as to the number of their children, living and dead.

"Here are the sorrowful results of our inquiry:

"One hundred and eleven patients who had consumed alcohol moderately have lost 66 children, or 18.41 per cent. of all born to them.

"Eighty patients who drank heavily have lost 73 children, or 20.33 per cent.

"One hundred and seventeen patients who drank very heavily have lost 220 children, or 61.22 per cent."

As the doctor gave these figures with impressive gravity, the statesmen listened in attentive silence, while the newspaper men made notes and the photographers took snapshots of the unique scene.

"Out of a total of 688 children born to these 308 patients," concluded Dr. Jacquet, "359 died, 207 of them in early infancy. These, Mr. President, especially under present circumstances, are sad and terrifying figures, and I regret having to make you acquainted with them."

The President, listening closely and a little pale, replied, "You must tell the truth, doctor." Turning to those behind him he said,

"I hope, gentlemen of the press, you have taken those figures and will make them known to the country."



**Don't break a pane of glass, and then whine because the rain comes in. Don't burn the candle at both ends, and then complain because there is no more candle.—F. W. Tupper.**

## What They Say

HUMAN PERFORMANCE always lags behind human knowledge.—*Herbert E. Walter.* (1)

AS TO INHERITANCE OF ACQUIRED CHARACTERS. Wooden legs are not inherited, but wooden heads are.—*Conklin.*

FEEBLE-MINDEDNESS IS NOT REVERSION to ancestral forms of less intelligence, but an instance of arrested development when for some reason, the individual failed to accomplish his normal cycle of development.

COMMON-SENSE A BALANCE WHEEL FOR ROMANCE. Science is simply organized common-sense, and romance that dispenses with this balance wheel, although it may be entertaining and always exciting at first is sure to be disappointing in the end. Marriages may be made in heaven, but as a matter of fact children are born and have to be brought up on earth.

THE DRUNKEN DESCENDANT OF A DRUNKEN GREAT-GRANDPARENT sometimes has acquired this characteristic through his own initiative quite aside from any ancestral contributions to his germ plasm. This is not reversion. It is a reacquisition which resembles the ancestral condition.

WHEN ALCOHOLISM "RUNS IN A FAMILY," its reappearance in the son is probably due to the fact that he is derived from the same weak strain of germ-plasm as his father.

At the same time, it is entirely probable that hereditary alcoholism may in some cases arise because acquired alcoholism may end in the simultaneous poisoning and consequent modification of both the somato-plasm and the germ-plasm of the parent with the result that the germ-plasm has less resistance to alcoholism in a succeeding generation.

BACILLUS OR RESISTANCE. The first impulse of the modern sanitarian is to eliminate the germ. But this is a superherculean task, for germs of tuberculosis are everywhere: how shall any escape? Why does only a small percentage die from attacks of tuberculosis? The answer is given by autopsies and the experiences of physicians. Those who die of tuberculosis are those whose bodies have not been able successfully to combat the germs. The result depends quite as much on internal resistance as on the virulence of the germ. . . . It is an incomplete statement to

say that the bacillus is the cause of tuberculosis. . . . The real cause of death of any person is his inability to cope with the disease or other untoward conditions.—C. B. Davenport in *Heredity in Relation to Eugenics.*

DRINK AN ENEMY TO RESISTANCE. The legislature listens sympathetically to the plea for an appropriation of \$150,000 for building a sanatorium for advanced cases of tuberculosis in order to prevent the spread of that disease by contagion. The newspapers cordially advocate these expenditures in the interest of the prevention of infectious diseases.

We all indorse these efforts. But we are amazed at the indifference toward the suppression of intemperance of some of those who are foremost in advocating measures for preventing tuberculosis infection.

There is abundant reliable testimony that alcohol is one of the most important of these agencies for reducing internal resistance to the bacillus.

Good business sense will not neglect the ounce of prevention in all directions, and since the foremost authorities point to alcohol as "the most powerful factor in the propagation of tuberculosis," we should give it the attention which it deserves, and, on the advice of the Paris International Congress on Tuberculosis, "combine the fight against tuberculosis with the fight against alcoholism" as fostered by the liquor traffic.—A. B. Cristy in *Rhode Island Issue.*

WAR FROM THE EUGENIC POINT OF VIEW is the height of folly, since presumably the brave and the physically fit march away to fight while in general the unqualified stay at home to reproduce the next generation. When a soldier dies on the battlefield or in the hospital, it is not alone a brave man who is cut off but it is the termination of a probably desirable strain of germ-plasm. The Thirty Years' War in Germany cost 6,000,000 lives. Napoleon in his campaigns drained the best blood of France.

David Starr Jordan has pointed out that the "man with a hoe" among European peasantry is not the result of centuries of oppression, as he has been pictured, but rather the dull progeny resulting from generations of the unfit who were left behind when the fit went off to war never to return.

Benjamin Franklin sums up the situation in the following epigram, "Wars are not paid for in war time; the bill comes later."



## *With the Editor*

### Drinking as a Personal Proposition

A RECENT breezy book, "Cutting it Out," which is well worth the reading, has its value for the drinker as the practical experience of the average man who decided that it was to his advantage to do what the title signifies. It contains, however, one fundamental error in its insistence that "drinking liquor is a personal proposition and nothing else . . . individual in every human relation."

The drink habit is, of course, individual in its beginning. The great majority of persons begin to drink because they want to for one reason or another. But that is a very small part of the matter. So may a man put himself deliberately in the way of contracting small-pox or typhoid fever, but ultimately none of these are purely personal or individual propositions. The sober scientific work of the last quarter century has shown the effects of using even small quantities of alcohol which speedily become more than individual.

The moment a habit affects a person other than the one who indulges in it, it ceases to be "personal" and "individual." The employer who has learned that the steady drinker, even though he may never get intoxicated is liable to be less efficient, less reliable, more subject to accident, is discriminating as a matter of business against the drinker, not because one drinker is an individual but because the drinker's habit has an effect on the employer's interests and those of the other employees. This business condition reacts on the drinker's family in its maintenance—others brought into the circle of effects. Physicians find that in middle life there is a higher death-rate among drinkers. These mean a loss to the family just when the man is most needed. They mean a loss to the community of men who ought to be in their most productive years, for, as Prof. Irving Fisher has shown, the life which is unnecessarily shortened makes a heavier charge on the community for its rearing in its unproductive years up to twenty years of age. The economist finds the waste entailed upon the community by the drinker through the commonly recognized facts of crime, pauperism and insanity.

It is these social facts based on accurate scientific and sociological studies that underlie the work of those whom the author mentioned is pleased to designate as "professional reformers." They are seeking, not primarily to curtail the liberties of individuals simply because of their own personal opinions, but as in any other health or social problem to deal with something that affects society as a whole. Any laws enacted in the matter are not for the purpose of "threats or terror or cajolery," but to the same ends as laws governing infectious disease—for the protection of the individual and the community from what is known to be a menace to human life. Education of the individual there must be, but at the same time, those who know what is true have a duty in trying to protect society against ignorance or carelessness.

### Sociability Avenue

FROM his personal experience, Jack London gives in his recent wonderful story, John Barleycorn, some hard knocks to the theory that the man who becomes the victim of alcohol is necessarily of a weak physical and mental stock. Such there may be, but there are others who, like Jack London, find themselves in the toils of John Barleycorn through social custom or appeal which become so thoroughly interwoven with life that even when fully aware of its danger, the victim decides that while he will no more let drink have its old sway over his life [if he can control it] he can not now sever the social ties of association with drink.

The man whose experience was related by Samuel Blythe found in the sudden transition to the non-drinking life the severance of old ties the hardest part of the readjustment, though he thought it worth while because "even though you miss the fun of the evening, you have your drinking friends lashed to the mast in the morning."

Dr. Lambert discovered that more than half the alcoholics questioned at Bellevue Hospital came into the habit through Sociability Avenue.

The comments, especially those in the British press, on Secretary Bryan's courteous establishment of a non-alcoholic regime

in hospitality show that the world has a good bit of way to travel yet in understanding that there is a well-defined reason for abandoning the social use of drink, and that to abandon it is not mere personal caprice. Meanwhile the words of Consul-General Wilder at Shanghai may well be a living inspiration in intelligently changing the old harmful ideals of hospitality. "It is a fine thing to help the individual man or woman, but it is divine statecraft to build up a good custom, or to break down a bad one which may control the actions of men long after individuals are forgotten."



### Germany's Congress for Temperance Training for Youth

**F**OURTEEN hundred people gathered in Easter week from four countries to discuss *temperance education* of youth! And this not in America, the birthplace of temperance education, but in Germany. The Imperial Prime Minister was the honorary president. The meetings were held in the halls of the Prussian House of Representatives. Authorities of the German Empire, of the various states and the principal cities sent delegates. Sweden, Russia and Switzerland were represented by visitors.

#### CHILDREN PURSUED BY DRINK

To the American, the facts brought out by this Congress as reported in *L'Abstinence* have a pertinent interest because the habits which it reveals as prevailing are habits often brought to America and established in our civilization from which we are trying to abolish alcohol. Professor Weygandt of Hamburg, for instance, showed how parents in their ignorance literally pursue their children with alcohol from the cradle to maturity: in babyhood, the "sop" wet with spirits or beer; in teething, wine to give marvellous strength to bones; in sickness during the early school years, wine or beer to "fortify"; in puberty, even, alcohol is still administered in ignorance of the fact that, to use Professor Weygandt's figure, such use of it is like transplanting a plant which is beginning to put out its buds in the spring into a greenhouse where it will develop more quickly but will wither more rapidly.

It is to meet this ignorance on the part of newly arrived Americans as well as those who are already here that temperance

education was required in the schools of America. Yet the question may well be asked how thoroughly the schools are meeting their responsibility in this respect, or are they still in the condition of those described at the German conference as giving the instruction "so occasionally that it becomes exceedingly rare." A letter recently received by the JOURNAL from the middle west written by a priest, a native of Germany, complains that the "temperance organizations seem to forget the work of noble Mary Hunt" and that in his vicinity, certainly, he doubts "whether they give the teaching required by law," because so many of the people are German and the teachers are timid.

### SHALL AMERICA CATER TO OR EDUCATE AWAY INJURIOUS FOREIGN CUSTOMS?

One need not be pessimistic in regard to temperance education. The writer believes that very few children in the United States get through school without learning something of the perils of drink and the reasons for abstinence. There are illustrious examples of good work done, but the question may be asked whether parents and patrons of the schools are sufficiently insisting that this subject receive the attention which its importance to the individual and the nation deserves, or whether in some cases like the one mentioned they are not too much deferring to foreign imported customs, failing to realize that these customs are a national peril and that progress is being made toward temperance education in the very countries from which these new citizens come. The mere fact of such a Congress as that held in Germany ought to help along temperance education in the strongly European communities of America.

#### DRINK TRAINS TO FALSE IDEALS

To those interested in the religious and moral training of youth, Professor Niebergall of Heidelberg had a message at the German Conference.

Alcohol, he declared, destroys respect for parents and for teachers. It dazzles youth with visions of a world of joy without trouble or care; it creates false ideals of morality, and of superficial friendships. It brings him to dwell in the house of "White Logic" so vividly described by Jack London in "John Barleycorn."

#### PRINCIPLES OF TEMPERANCE TEACHING

There were familiar strains in the discussion of the principles of temperance teaching at the German Congress as one recog-



nizes in them principles early laid down and always insisted upon the founder of the American system of temperance instruction, Mrs. Hunt. "Regular systematic instruction as a part of hygiene" or language, supplemented by the incidental instruction has a most familiar sound. Thus the German comes to the principle against which certain American educators long contended. Other recommendations were the familiar ones of tact in teaching so that the child should not lose respect for parents who may indulge in the drink habit; clear, definite instruction that the use of alcohol by the child is absolutely harmful; instruction of girls as well as of boys, because as Mlle. Kniebe pointed out, girls often impair their health by using alcohol, and because the

girls of today are the mothers and teachers of tomorrow. "It is absolutely necessary to show girls how many physical and moral forces are squandered by the use of alcohol so that the youth of the future may be preserved from this evil."

"Let us hope," says Dr. Hercod in reporting this Congress, and his words may be echoed in America in those sections where they are applicable, "that school authorities may come out of their apathy and grant us the serious anti-alcohol instruction for which we have a long time been asking."

"It is upon the temperance teaching of youth that victory in our movement depends."



### Reaching the People Where They Are

THE SCIENTIFIC TEMPERANCE FEDERATION EXHIBIT on Alcohol is at the great missionary exposition, "The World in Chicago," under the capable direction of Miss Wills, who also had it in charge at the "World in Baltimore." It is well located at the head of the stairs leading to the balcony and attracted the attention of several hundred people during the opening hours. Miss Wills will give a stereopticon lecture on Temperance Day, May 16, at "The World".

Special exhibits on ALCOHOL AND THE CHILD have been furnished Child Welfare Exhibits at Providence and Newport, R. I., North Adams, Mass., and New Britain, Conn., since January first.

STORE WINDOW EXHIBITS have been worked out in Massachusetts in the past winter by the Federation in co-operation with the Massachusetts No-License League.

For the General Assembly of the Presbyterian Church at Atlanta, Ga., in May, and the General Conference of Seventh-Day Adventists, including the Medical Missionary Council, at Washington, May-June, the Federation is supplying exhibits of pictures, diagrams, and models illustrating the facts about alcohol.

The pamphlet, THE EFFECTS OF ALCOHOL, prepared by the Federation at the request of the Anti-Saloon League of Maryland, which printed 100,000 copies for use in connection with the \$3,000 Prize Essay Contest in Baltimore, is being placed in every home in that city by the joint effort in distribution of all the temperance societies of the city and of churches and young people's societies.

The Scientific Temperance Federation was represented by the Secretary at the recent conference in New York called by a committee of the American Medical Association to which were invited sixty national organizations interested in the promotion of public health. Delegates were present from nearly forty national organizations, and a committee was appointed to consider and report plans by which the work of the various organizations for public health might be co-ordinated and duplication avoided.

The Federation's executive secretary, Miss Stoddard, was invited by the program committee of the MILAN INTERNATIONAL CONGRESS ON ALCOHOLISM to prepare the general report on temperance education, but has been obliged to withdraw as it was impossible to go to Europe this year.

Material was supplied for the report on this subject given by Prof. Gonser at the German Easter Conference on temperance education described elsewhere.

The Federation as an educational organization dealing with the scientific facts about alcohol aims (1) to work through all existing educational machinery for teaching the facts about alcohol, organization of every social and educational agency that can be applied to this work, and (2) it is developing its work to REACH THE PEOPLE WHERE THEY ARE.

If these aims seem sensible and worth while, remember that it costs money to put them into effect. Everybody likes appreciative words, but it is "ducats, friends, ducats" that pay the necessary bills.

## Problems for Big and Little Arithmeticians

ACCORDING to *The American Grocer*, the total expenditure for alcoholic drinks in the United States during the past five years was \$8,853,000,000. The average per capita expenditure for each of the past three years has been \$18.84 or \$94.20 for each family of five persons. These are considered conservative estimates of what is spent for intoxicating liquors in the United States.

1. If \$8,853,000,000 was spent for alcoholic liquors in five years, what was the average expenditure for one year? (Ans. \$1,770,600,000).

2. The average family spends \$94.20 for drink annually. If instead of using this for drink, \$25 were spent for a suit for father, \$25 for a suit for mother, and \$10 for clothing for each of the three children, how much would there still be left for pleasure trips or for books? (Ans. \$14.20).

3. If the \$1,770,600,000 annually spent for drink were paid over to the 27,373,055 men and women wage-earners in the United States how much would each receive annually? (Ans. \$65.05).

4. At \$5,000 each, how many homes or farms could have been bought in the past five years with the \$8,853,000,000 spent for intoxicating liquor? (Ans. 1,770,600). How many at \$2,000? (Ans. 4,426,500. *Note.* There are only 7,259,000 homes now owned in the United States).

5. If a college course cost \$3,000, how many young people would the \$1,770,600,000 educate if thus spent instead of for drink? (Ans. 590,200). *Note.* There are now only 183,572 young people in colleges and universities.

6. How many Panama Canals at \$115,000,000 could be built each year with the \$1,770,600,000 spent for liquor? (Ans. 15 and \$45,460,000 would be left for good roads and protection of waterways to prevent flood damages).

7. Each state needs at least one sanatorium for its people who are suffering from tuberculosis, many of whom are dying for lack of treatment and are a constant source of danger to others. Each state needs a colony where its mentally defective persons can have the necessary training and care to prevent them from doing harm to themselves and to others, and to prevent the reproduction of their kind.

If one-third of the annual expenditure for drink (\$1,770,600,000) were set aside

for such sanatorium and homes, how many costing \$500,000 each could be built and equipped? (Ans. 1,180). How many for each state? (Ans. 24).

At an annual maintenance cost of \$500 for each patient, how many patients and defectives could be cared for with the remaining two-thirds of the \$1,770,600,000? (Ans. 1,180,400).

## A Conflict for Boys

WHAT a conflict it is! Spirit against flesh, day by day and year by year, a conflict for boys as well as a conflict for men.

It's very largely a boy's battle. That is, it will largely be fought out before you boys get to be twenty-one years of age. I have seldom seen a fellow "lose out" who kept the spiritual side of his nature uppermost until he grew to young manhood. That's what I mean by it's being a boy's battle.

The thing that impresses me most in it all is this: This fight is going to be a hard one, and a long one. If I keep all the powers given me up to their highest efficiency, I will still have a fight on my hands that will tax all my strength, and in which I'll need all the help that God gives me. Now, then, shall I weaken my brain, and my will, and my muscle, by tobacco and alcohol, or by any other form of intemperance?

When you stop to think it all through, the fellow who starts his life-work with these hinderings things is terribly short-sighted, isn't he? He likes them? Why, yes; we can acquire a taste for these things; that is simply a matter of yielding to the body (the "flesh"). And each time he yields he is weakened against resisting next time, and becomes more sure of losing the battle next time.

If a fellow will make a bargain with me to leave tobacco alone till he's twenty-one, I'm satisfied to let it go at that. There's not one chance in a thousand that he'll begin with it then. He will be stronger in body; he will have more good, common sense; he will have seen how it affects other boys; he will realize the necessity for a strong body and a clear mind in the battle of life—indeed, there will be a score of reasons why he will say, No tobacco for me.

So I put it up to you boys today: What kind of "fruits" do you want your mature life to produce (Galatians 5:19-21 or 22-23)? I know your decision; but—listen—What kind are you planting, now, in your teens?—*S. S. Times.*



### For Moments of Reflection

THE teacher who finds temperance instruction a bore, if he examines his methods carefully, will generally find that he has been long on exhortation and short on facts.—*Cora F. Stoddard*.

Do you teach the subject of narcotics in such a manner as to give the class convictions on it, and why? Found a habit on conviction and no power can prevail against it.—*Western School Journal*.

If you can make teachers realize that in the heart of every child there is a chamber of imagery in which the devil is constantly endeavoring to store up evil influences to menace the future, you will have accomplished a great and mighty effort on behalf of the children of the nation.—*Anthony Comstock*.

The moral side of temperance instruction is all right, but how am I to instruct the child against any bad habit unless I show him plainly the evils which follow in the train of indulging that habit? If we expect the man to exercise his will-power to resist temptation, there must be some motive or reason as a foundation, and the earlier in childhood this reason or motive is implanted, the broader and stronger is the foundation upon which his will rests and from which it derives its strength.—*Henry L. Sabin*.



### For the Bulletin Board

ALCOHOL-caused disease is preventable disease, and like other preventable disease must be wiped out.

Every today has a tomorrow. Every act has a consequence. For every seed sown there must be a harvest.

What a young man earns in the daytime goes into his pocket. What he spends at night goes into his character.—*Theodore Cuyler*.

It isn't only the drop in wages that actually hurts a man. It is sometimes the drop he takes after getting his wages that drops him.

There is a danger in drinking that ought to restrain a cautious and prudent person, namely, that the habit grows, imperceptibly, it is true, but surely. All of those who at last reached the point where they were unable to withstand the temptation began drinking with entire confidence in their ability to control their appetite.—*Hon. William J. Bryan*.

Fasten the drink habit on a boy and his

future earning capacity is thereby mortgaged to the brewer and the distiller.—*Mary H. Hunt*.

We are slave-traders with our own liberty, bartering it away whenever we permit in ourselves the repetition of any wrong action until it becomes a habit, and whenever we permit wrong habits to crystallize into character.—*J. F. Cowan*.



### Special Summer Educational Events

THE NATIONAL PROHIBITION TRAINING SCHOOL, 106 North La Salle St., Chicago, May 6-27, 1913. Lecturers: H. S. Warner, Virgil G. Hinshaw, F. D. L. Squires, E. W. Chafin, and others.

SUMMER SCHOOL OF EUGENICS, Boston, July 7-August 8, 1913. Lecturers: Catherine M. McGinley, Clara B. Beatley, Dr. Geo. V. N. Dearborn, Dr. H. E. Jordan, Bleeker Van Wagenen, and others. Tuition, \$50. Director, Dr. Evangeline W. Young, 585 Boylston St., Boston, Mass.

PHYSIOLOGY AND HYGIENE, EFFECTS OF ALCOHOL AND OTHER NARCOTICS. Course at University of Pennsylvania, July 7-August 15, 1913. Tuition, \$15. Director, William O. Easton, Executive Secretary Central Y. M. C. A., Philadelphia.

FOURTH INTERNATIONAL CONGRESS ON SCHOOL HYGIENE, Buffalo, N. Y., August 25-30, 1913. Membership, \$5.00. Secretary, Dr. Thomas A. Storey, College of the City of New York, New York City.

FOURTEENTH INTERNATIONAL CONGRESS ON ALCOHOLISM at Milan, Italy, September 22-27, 1913. For the first time this International Congress will meet at Italy. Sessions are to be held at the palace "Villa Reale" through the courtesy of the Italian royal family. There will be a varied program dealing with the pathological, economic, social, national, family and educational aspects of the alcohol question.

Anyone wishing to receive a report containing the papers and discussions may enroll as a member for six francs (about \$1.20). Visitors will pay a membership fee of 10 francs. Subscriptions should be sent to Dr. Fr. Ferrari, 2 Via Machiavelle, Milan.



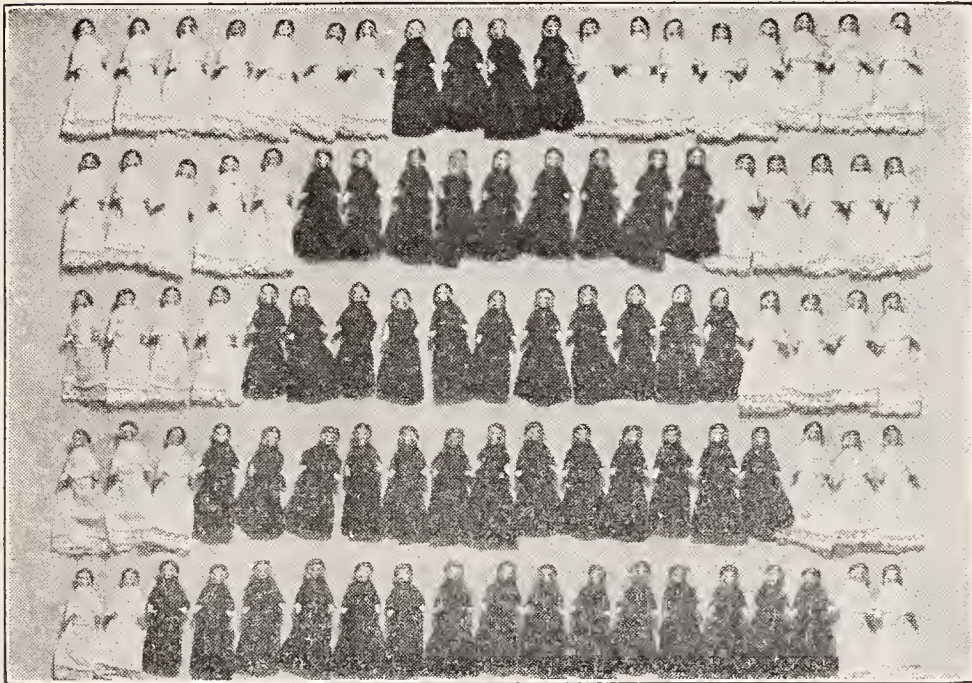
### Life

To clear from human eyes the dust,  
To meet from human hearts the crust,  
To cleave from human wills the rust.



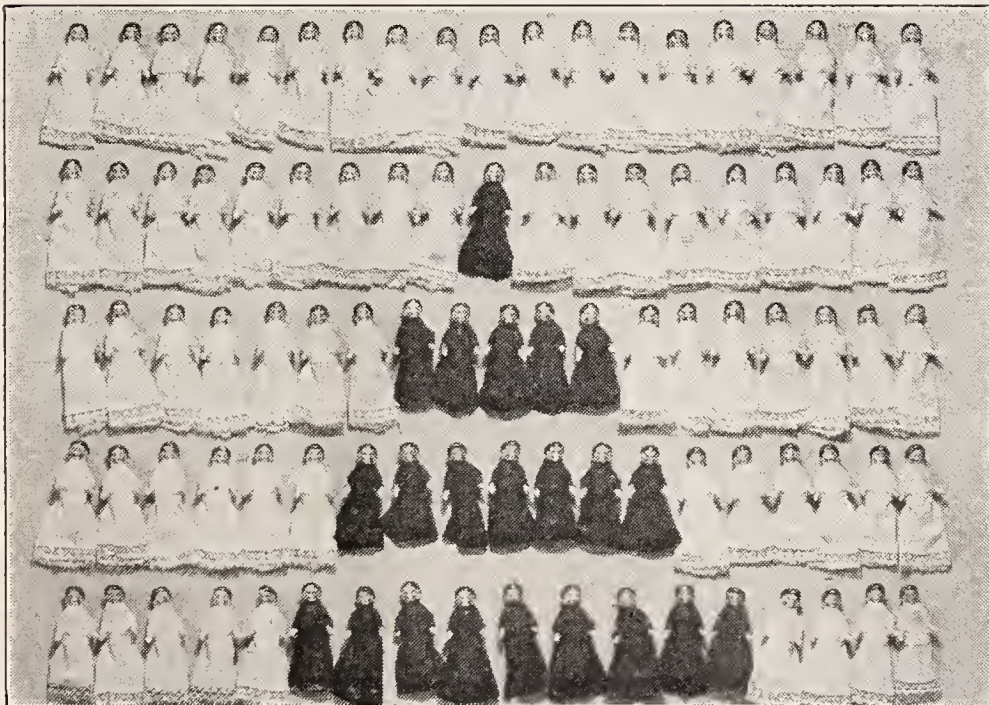
## Mortality of Children of DRINKING Mothers.

Children in Black Died Under Two Years 55 per cent



## Mortality of Children of SOBER Mothers.

Children in Black Died Under Two Years 23 per cent



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The sober mothers were relatives of the drinking mothers and had sober husbands.



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# Scientific Temperance Journal

Vol. XXII

BOSTON, JUNE, 1913

No. 10

EVERY day I am more sure of the mistake made by good people universally in trying to pull fallen people up instead of keeping the yet safe ones from tumbling after them; and in always spending their pains on the worst instead of on the best material.—Ruskin.

## Where the Sickle Works

CORA FRANCES STODDARD

Executive Secretary of the Scientific Temperance Federation, Boston

THE Prudential Insurance Company(1) has now prepared some tables based on the records of 103,434 deaths of occupied men over fifteen years of age in the company's industrial experience during the period 1907-1910. These tables indicate the proportion of deaths due to various diseases out of the total number of deaths in each occupation, that is, for example, out of 3,443 clerks who died, death was due to tuberculosis in 36.7 per cent of the cases, to heart disease in 7.9 per cent, etc.

This "proportionate mortality" is a fact of real importance as giving a clue to the proportion of deaths from preventable diseases at different periods of life and in different occupations. For instance, as the Prudential hand-book points out, among employed men dying between 25 and 34 years of age, 42.9 per cent of the deaths are due to tuberculosis. "It is obvious that if modern methods aiming at the control and gradual elimination of this disease are successful, the death rate at this period of life will be very substantially reduced by a material diminution in the mortality of this disease."

Some idea may be gained from these tables as to what drink is doing with various occupations and especially with those concerned in the selling of alcoholic beverages and what is the importance of drink in public health.

The compilers of the Prudential report have had the good sense to keep the records of saloon-keepers and bartenders by themselves. The figures throw an interesting light, not only on the diseases of these particular occupations engaged in handling the "healthful alcoholic drinks," as the alluring newspaper advertisement would have us believe, but on the diseases common among other occupations where there is also a high alcoholic death rate.

## ON THE NARROW TRAIL OF DRINK

There are seven occupations listed in which the deaths from alcoholism equal or exceed the average (1.5 per cent). These ranks as follows:

|                |               |
|----------------|---------------|
| Bartenders     | 6.7 per cent. |
| Saloon-keepers | 4.4 " "       |
| Glass Workers  | 1.9 " "       |
| Plumbers       | 1.9 " "       |
| Masons         | 1.9 " "       |
| Printers       | 1.6 " "       |
| Cigar Makers   | 1.5 " "       |

Painters follow closely at 1.4 per cent. All the other occupations range lower from carpenters at 1.3 per cent, down to farmers at the foot of the list with a rate of .3 per cent.

Thus alcohol is evidently one of the special dangers of the trades handling it, as the proportionate death-rate from alcoholism among bartenders and saloon-keepers was from two and one-half to three and one-half times as great as in any other occupation. Here, too, as in Kraepelin's and Gruber's studies in Berlin, the men actually concerned in handling the liquor have a higher death rate from alcoholism than the employers.

The paradox of the liquor advertisement claiming that alcoholic drinks are healthful thus becomes evident:

*The men who handled alcoholic drinks had the largest percentage of deaths from alcohol.*

## AN EXPENSIVE PREVENTABLE DEATH LIST

The total harvest gathered by alcoholism from the policy-holders of this one insurance company alone for the years, 1907-1910, was 1522, an economic loss to the country of \$1,522,000 counting a man's life worth only \$1,000.

If these insurance company figures are any criterion of the extent of alcoholism, public mortality returns fall far short of



revealing the true loss which alcoholism alone inflicts on public health. For instance, the alcoholic deaths of males over fifteen years of age in the registration area of the United States for the year 1908 were recorded as 2,084.

But if the Prudential Insurance Company's proportion is applicable to general mortality statistics, the true number of male deaths from alcoholism (exclusive of diseases in which alcohol was only factor) was nearly 3,800, and it is time for boards of health to take notice that these *3,800 alcohol-caused deaths were preventable deaths.*

#### A WIDE SWATH IN THE PRIME OF LIFE

Alcoholism carried off saloon-keepers and bartenders in excessive numbers in the prime of life. Taking the occupations as a whole, the apex of alcoholic mortality appeared in the ages 25-44 years, in the prime of life period. Alcoholism, on the average, caused 5 per cent of deaths; but in saloon-keepers it caused 6.2 per cent, and in bartenders 7.7 per cent.

Similar facts appear in the general disease rates. The proportionate loss of life from all diseases was early heavy in the alcohol handling occupations.

#### Per cent Deaths at Ages 25-44

|                 |                |
|-----------------|----------------|
| All occupations | 31.7 per cent. |
| Saloon-keepers  | 48. " "        |
| Bartenders      | 72. " "        |

Thus the prime of life period brought death to almost half the insured saloon-keepers who died, and to almost three-quarters of the bartenders, while a large proportion of men in other occupations lived on into the later age periods. At 65 years of age there were left to die in the still later years:

|                 |               |
|-----------------|---------------|
| Bartenders      | 1.4 per cent. |
| Saloon-keepers  | 5.1 " "       |
| All occupations | 20. " "       |

#### OTHER FRUITFUL FIELDS OF DEATH

Taking as a group by themselves the seven occupations which lose a disproportionate number by alcoholism, they show, as might be expected, an excessive death rate in liver disease, urinary disease, suicide and tuberculosis.

Every occupation in the group has a super-normal death rate in liver disease with an especially bad showing for bartenders and saloon-keepers.

#### Proportionate Mortality in Liver Diseases

|  |               |
|--|---------------|
| All occupations  | 2.9 per cent. |
| Seven occupations having excessive alcoholism death-rate | 4.6 " "       |
| Bartenders   | 5.7 " "       |
| Saloon-keepers   | 11.1 " "      |

In other digestive diseases also, saloon-keepers had the highest death rate in the twenty occupations.

In urinary diseases, they likewise led with a mortality percentage of 16.1 as against the average rate of 12. Bartenders fell only a trifle below the average with a rate of 11.6 per cent.

"The high mortality from liver and urinary diseases in saloon-keepers and bartenders is an indication of the influence of occupation upon the mortality," is the comment of the Prudential report.

Cigar-makers and masons, both belonging to the group with high alcoholism death rate, also had high mortality in urinary diseases, while next to saloon-keepers ranked the painters who were only barely outside the abnormal alcoholism death list.

Other special enemies to the bartenders were pneumonia, typhoid and tuberculosis.

#### AN ENEMY TO THE JOY OF LIVING

A reporter for a daily paper, while visiting the Exhibit of the Scientific Temperance Federation during the past year, remarked that in the many cases of suicide he had necessarily investigated, there had been but two in which drink was not in some way connected with the tragedy.

Every occupation except one (printers) in the list of high alcoholic death rates had also an excessive suicide mortality. No occupation recorded had a larger proportion of suicides than was to be found in this group.

As saloon-keepers stood at the head of the entire list it would appear that for some reason they did not experience the intense joy of living which alcohol is supposed to supply.

#### THE WHITE PLAGUE HARVEST

Repeatedly the fact has been pointed out that directly and indirectly alcohol prepares the soil for tuberculosis.

The Prudential records give apparently fresh confirmation. The average tuberculosis rate for all ages above 15 years was 21.9 per cent.

|                   |                |
|-------------------|----------------|
| Bartenders had    | 31.8 per cent. |
| Glass Workers had | 33.8 " "       |
| Plumbers had      | 32.9 " "       |
| Printers had      | 38.4 " "       |
| Cigar Makers had  | 26.7 " "       |

Painters, who had an excessive tuber-

culosis rate, missed by only one-tenth of one per cent the super-average class in alcoholism.

In the case of all the other occupations given which had an excessive tuberculosis rate, clerks, stone-workers, textile workers and machinists, a high mortality in tuberculosis might reasonably be expected because of confining indoor work, dust, or damp, especially incident to the occupations.

Some of these factors of course enter into the cases of groups having both high alcoholism and tuberculosis mortality but there seems no apparent reason except the alcohol habit, which appears to be especially prevalent in the group named, why the mortality should be so much higher than in other occupations also subject to dust, confinement and exposures.

The bartending job, for example, apparently comes into the list of occupations dangerous from the tuberculosis point of view, as its death roll from tuberculosis is exceeded among the 'non-alcoholic' group of occupations only by clerks and stone-workers whose indoor life in the one case, and dust in the other, make them especially liable.

*Thus a high alcoholic death rate and a high tuberculosis death rate go hand in hand.*

Further, tuberculosis carried off its victims earlier in the drink-dealing occupations. The deaths from tuberculosis oc-

curring before 44 years of age (15-44) in bartenders (88 per cent) are exceeded only by clerks (91 per cent). The latter have a heavier tuberculosis death rate from 15 to 25 years, as, of course, they may enter general clerking business earlier than a young man may become a bartender.

Of the deaths from tuberculosis in all occupations 61 per cent occurred in the prime of life (25-44 years); in saloon-keepers, 74.6 per cent; in bartenders, 84 per cent.

*The tendency of the liquor selling occupations was to greatly hasten the deaths from tuberculosis and thereby to unnecessarily shorten life.*

DRINK A PREVENTIVE OF DEATH FROM OLD AGE.

In one direction alone (apart from accidents) the saloon-keepers and bartenders carry off the palm for a low rate.

They had the smallest mortality from old age.

Out of 1,163 bartenders, only one died of old age. There should have been ten had they been as long lived as the average insured man. Sixty hundred and sixty-five saloon-keepers had a remarkable escape and lost not a single man from old age. Had they been subject to it like other men, it would have carried off six of them.

Let the advertisements of alcoholic liquors hereafter herald this advantage:

*Drink will help prevent death from old age.*



## Beer Claims That Must Be Disallowed

BY E. L. TRANSEAU

A SEARCH through a pile of brewers' tracts and advertisements for the strongest arguments advanced to persuade the public to drink beer, reveals only the following:

1. The "absolute purity" of beer.
2. Its "harmlessness."
3. Its "food," "tonic" and "stimulant" properties.
4. The assertion that "It tastes good going down."

The second of these arguments is the really important one. If it can be maintained that beer is harmless the others matter little either way.

There are those who claim that the fourth is "all there is to it," for no one has a right to forbid a person taking what he likes. That view does not hold in the interdependent social conditions of today where one man's mistakes increase the expenses

of his neighbors.

If beer is a "harmless" beverage there is no reason why one who likes it should not drink it, if he can pay for it. Whether it is "pure" or not is not a vital question. If it is "harmless," and if, besides tasting good, it is a food, tonic and stimulant, all the better for the user.

WHERE THE BURDEN OF PROOF LIES

To prove that beer is a "harmless" beverage, it is not sufficient to show that it is possible to take so little of it that no harmful effects follow. It must be proved that taken and used as a beverage, to satisfy the normal demands for a drink it is a safe substance to use.

It is not sufficient to show that a few persons have used it as a beverage through a long life, without apparent harm. It must be proved that the average man can so use it.



It is not enough to assert that large numbers of persons use beer without injury. Their condition must be rigidly examined by modern clinical appliances which detect the unsuspected heart insufficiency, the subtle, premature "old age in the arteries," the disordered digestion that requires a whip before it will do its work properly.

An endurance test ought also to form part of the examination for beer injury, an amount of strenuous physical exertion readily borne by other men of like age. There should be equal freedom from disease. Habits of exercise of those who do not use beer ought to be well borne by the beer drinker if his beverage has not injured him.

#### FEELING OR FACT

The beer advocate claims that there is not enough alcohol in beer to do harm, only enough to be "mildly stimulating."

This statement is self-contradictory, for when beer is "mildly stimulating" it is exerting a drug effect, one that is not truly "stimulating," as was once believed, but depressive.

If there is enough alcohol in beer to produce this so-called "mild stimulation," that in itself is a source of danger. The drug effect, supposed to be stimulation, is due to a property which alcohol has in common with opium and morphine. It is a nerve deadener.

As the body adapts itself to repeated doses of alcohol, gets "used" to it, as runs the ordinary phrase, larger and larger amounts are required to produce the same

degree of "drug effect." The drinker who prizes this feeling and uses beer to produce it will necessarily enlarge his allowance from time to time in order to get the effect.

It is this constant prompting or urging to increasing amounts that constitutes the chief danger of all narcotics. For unless the user is constantly on his guard, using his will to deny himself what he feels that he wants, he gradually oversteps the limits that could by any shadow of reason be considered a harmless amount.

But the drinker's resolution to hold to a definite amount has also to contend with ever-recurring, insinuating appeals for exceeding his prescribed allowance; calls of friends, unusual strain and weariness, celebrations—many excuses are cunningly presented by a reason that is subject to the appeals of a depraved appetite, while the power of self-control is undermined by alcohol.

The ever-losing struggles of a reason so influenced are strongly portrayed by the recent articles of Jack London in the *Saturday Evening Post*.

In the crude states of civilization in the past when alcoholic beer, wine and cider were the most available artificial drinks there was more excuse for using them than there is now when we have so many non-alcoholic drinks that, to the normal palate, taste far better "going down," and are free from the unquestionable power to harm that is being constantly proved and re-proved against the drinks containing alcohol.



### The Austrian Army Cutting Out Alcohol

THE earnest pleas made from some quarters to restore the sale of fermented drinks to the American army, and the apparent failure of American military authorities to consider the effect of alcohol upon army efficiency compare unfavorably, it must be confessed, with the serious attention being given the matter in the British, German and other European armies.

The Austro-Hungarian army, according to the Vienna correspondent of the *Journal of the American Medical Association* (May 31, 1913), is closely limiting the use of alcohol.

The present unsettled political conditions in Europe have resulted in keeping a large number of soldiers in readiness for more than half a year, and the provisions for

hygienic welfare of several hundred thousand men are being put to a crucial test.

#### ALCOHOL DOES NOT MAKE BAD WATER GOOD

A fact worthy of notice is the nearly complete absence of alcohol from the daily bill of fare of the soldiers on the frontier. The water supply in that country being none too good, care has been taken to instruct the soldiers in this respect and they are being constantly told that the old statement, "bad water is made innocuous by alcohol" is a dangerous misrepresentation.

#### SOLDIERS' ENDURANCE IMPAIRED BY ALCOHOL

It has also been ascertained that whenever a period of endurance was required of the soldiers those who took no alcohol were

much more fit for work than the other men. In mountain climbing the consumption of alcoholic beverages was distinctly detrimental to the accuracy of stepping. The effect of sweetened liquid (sweet tea, coffee, or milk) was very gratifying. The sweet, mild black Italian or Turkish wine with a very low percentage of alcohol was ranked with these other beverages, but even this wine was disallowed when long exercises were taken.

The experiences obtained by the army authorities will no doubt lead to a complete elimination of alcohol as "war rations" except for medical use, although here also experience speaks at least not in

favor of an addition of alcohol for pneumonia, typhoid and general debility.

#### ABSTINENCE PROMOTES ARMY DISCIPLINE

It is also noted that total abstainers form a negligible fraction among those soldiers who have to be punished for disorderly conduct, breach of discipline or other minor offenses of a military nature, although total abstention is frequent now in the rank and file of the army, for, in the anti-alcohol movement in Europe, says the correspondent, "our army is one of the leaders."

Those who claim that the beer canteen is necessary to discipline in the American army should observe the comment of this correspondent.

### Why Men Drink

A MAN'S first drink may be conditioned on a wide range of causes—social, medical, or purely personal, but the drink *habit* lies deeper in the chemical effect of narcotic drugs upon the living substance of nerve cells.

Writing from this point of view on the question why men drink, Dr. J. T. Searcy, Superintendent of the Alabama Insane Asylum, cites in evidence the now well-known fact that alcohol affects first the highest brain centers.

It belongs to the same class of drugs as the anaesthetics, chloroform and ether, used in surgical operations to dull feeling. Alcohol could be used for this purpose, but has been found to be less suitable than the other drugs named.

The action of an anaesthetic is due to its peculiar affinity for the protoplasmic material of nerve cells, which is thereby temporarily disarranged. Yet anaesthetics would be of no use in surgery if they acted equally and at the same time upon all nerve cells. It is because they act first upon the more delicate cells concerned in sensation, or feeling, that they are employed. The administrator must be able, moreover, to tell when the right amount is given to stop the workings of the nerves of sensation, but not enough to stop the action of those that control the motions of the heart, lungs, and other vital organs.

So when alcohol is used in the amounts customary in ordinary moderate drinking there is sufficient blunting of the feelings to dull sensations of discomfort and this makes the drinker think that it induces comfort.

#### BLUNTING INCREASES IRRITABILITY

But the result of frequent blunting of

the nerves of feeling by chemical action of alcohol is to make them more irritable, so that they become abnormally subject to feelings of discomfort. The habitué "feels bad" when he ought not, and he knows that he can relieve this "bad feeling" by taking more of the drug, ignorant of the fact that the alcohol itself is the cause of the discomfort.

#### WHY THE NERVOUSLY UNBALANCED ARE MORE SUSCEPTIBLE TO ALCOHOL

The length of time required for the frequent dulling of the nerves by alcohol to cause abnormal irritability varies. It undoubtedly depends very much upon the original stability of the nerves, and here no doubt is the reason why addiction to alcohol appears to develop more rapidly in the nervously unbalanced.

"We are begetting many children with inherent 'dope diathesis' [predisposition]" says Dr. Searcy, "by the general use of such agents as luxuries. The land is full of children and adults who have inherited impaired psychic centers. There are more nervous children in the schools and more dullards not able to keep up with their classes, and more adults deficient and defective in their mental abilities . . . All our charities and corrections are more and more overworked."

Quite in agreement with Dr. Searcy, though coming at the question from another standpoint, are some conclusions of Dr. C. C. Wholey (\*) of St. Francis Hospital, Pittsburg.

#### MEDICAL AND IDEAL INFLUENCES

Dr. Wholey, discussing the relation of nervous and mental diseases to alcoholism, recognizes a class who become addicted to alcohol or other drugs artificially, that is,

\* Jour. Am. Med. Assn., 1912, p. 322.



apart from any inherent weakness which might have a causal tendency.

"Among artificially induced cases may be cited those of persons who have blundered into the habit through taking alcohol as a tonic, or as a hypnotic, or as a sedative in dysmenorrhea, or through the use of morphine to relieve pain such as that incident to gall-stone colic or neuralgia.

"In this class also are the cases of alcoholism brought on through social customs, such as treating, or of giving young children alcoholic beverages in the belief that such will make them healthy, large and strong; and the widespread custom among the working classes of taking alcohol in the belief that it gives muscular endurance or supplies bodily warmth."

In other cases of drug addiction than those due to custom or prejudice Dr. Wholey finds it comparatively easy to recognize many of the diseased conditions that have resulted from the drug, but very difficult to trace out the causes that have led to the addiction. It may be heredity, or it may be environment. An alcoholic father does not necessarily produce an alcoholic son, "but it is probable that alcoholism, as is the case in tuberculosis, syphilis, cancer, etc., implants in the offspring a less resisting constitution which proves to be a ready soil for certain nerve troubles with which drug addiction seems especially likely to become associated."

#### THE INDIRECT INFLUENCE OF PARENTAL ALCOHOLISM

On the other hand, heredity cannot with certainty be held responsible for an unstable nervous condition "for often the children of alcoholism and other drug addicts are so insufficiently nourished during childhood, and are reared in such unhappy and such unhygienic homes as to endow them with unstable nervous constitutions.

"A factor which I believe may figure largely in evolving the unstable and unfit, among whom drug habits abound," Dr. Wholey continued, "is the widespread use during infancy of soothing syrups containing opium and other narcotics.

"In the study of drug addictions one soon comes to see that there are many conditions in which the addiction may figure both as cause and effect. Alcoholism in the ascendants may establish disease of brain or nervous system and such disease in turn be the determining factor in causing alcoholism or other drug addiction in the descendants.

"In the individual, a drug habit once formed establishes organic and mental changes leading to tolerance and finally to craving, making a continuance of the indulgence necessary to preserve his comfort against the ever-increasing distress of withdrawal."



#### Alcohol's Declining Role in Medicine

ALCOHOL is rapidly losing its former place as a medicine especially in the treatment of infectious diseases. The injury caused by the alcohol to the infection does not compensate for the harm resulting from the unfavorable influences on the natural protective power of the organism, the blood-pressure and the respiration.

Such were the conclusions expressed by Dr. Ewald of Berlin in a paper on alcohol and infectious diseases at the Sixth International Congress on Physiotherapy in April, 1913.

It was believed formerly, said Dr. Ewald, that treatment by alcohol was especially indicated in the infectious tropical diseases, in syphilis and other venereal diseases, in pneumonia, rheumatism, scarlet fever, measles, and diphtheria. But at present the opinion prevails that treatment with alcohol is injurious rather than advantageous in many cases. Even in tuberculosis of the lungs, the injurious influence of alcohol is established. Ewald gives alcohol only in severe heart-failure and in certain forms of diabetes, particularly in incurable cases, in order to divert the mind of the patient from dwelling on the hopelessness of his condition.—*Berlin Correspondent Jour. Amer. Med. Assn.*, May 24, 1913.



AN evil can be driven out of society only by being fairly faced, fully discussed, and then educated out.—*E. P. Powell*.

It makes little difference to the alcohol question whether wine is pure or adulterated, for the alcohol it contains exerts the same physiological influence whether it is made from the poetic grape or the prosaic potato.—*Die Enthalttsamkeit*.

If the waste [of money spent for alcohol] stopped at the direct cost, the trouble would be large, though computable, but the evil of drink is that the chief mischief only begins when it has passed into circulation, and it returns after many days in crime, disorder, disease, squalor, and all the abominations drink causes.—*Hon. John Burns*.

**S**OCRATES said "A man's efficiency is determined by his knowledge; so also is his conduct as a citizen; and since citizenship is the supreme end, it demands the highest knowledge." This is practically true. You cannot awaken a citizen to the need of action in the greatest cause pressing now upon the morality of citizens, the temperance question, unless he knows what are the effects of drink. You think every man must know this without instruction. Surely not. He has been told all his life that beer is healthful, that wine is invigorating, that there is a natural craving for alcoholic drinks. We cannot be impatient with such men. We must teach them, literally, the truth of the matter.—Martha McClellan Brown.

## Alcoholism in Large Cities

JOHANNES LEONHART, M. D.

**P**RESENT-DAY social questions are largely city problems. Populations are concentrating in the large cities. Our children are already city children, and our grandchildren will be so to a still greater degree.

The alcohol question is an important part of the social question.

### CONSUMPTION OF ALCOHOL

The number of saloons per capita may be taken as an approximate index of the amount of drinking. In Berlin, 1905, there were 24,493 house premises and 13,818 drinking places, i. e., one in every second house. The per capita consumption was 214 liters of beer, 9.59 kilos of wine, 12.9 kilos of spirits. The expenditure for drink was 206,000,000 marks [\$51,500,000].

### THE CITY COURTS

In 1905, 6,046 persons were arrested on account of drunkenness. This of course represents only a small proportion of the intoxication. The well-to-do classes do not figure in this for they are able to call a cab to be taken home without attracting attention.

In 70 out of each 100 convictions in Berlin the offense was found to have been committed during intoxication. At least 10,000 persons are annually brought before the courts in Berlin as a result of taking alcohol.

### THE HEALTH DEPARTMENT

The percentage of sickness due wholly or in part to alcohol, varies in different cities. In Charlottenburg in 1904, Dr. Gravitvitz reported that 20 per cent of the cases received in the hospital were alcoholics. In the last twenty-five years the number received into the hospitals on account of alcoholism has quintupled, while the population has only increased about a third.

Unless alcohol is combated, the campaigns against tuberculosis and syphilis are much more difficult. The connection between alcoholism and immorality has now

been shown so unmistakably that it is clear no progress can be made in fighting immorality without at the same time fighting alcohol. Hamburg has set the example of appropriating material support to the Good Templars.

### ACCIDENTS

The disproportionate number of accidents on Monday testifies to the after effects of Sunday drinking. We have injuries caused by drinking chauffeurs and railroad accidents caused by drinking trainmen.

### CITY FINANCES

All city treasuries suffer in a marked degree from alcoholism. About 3,000 deserted wives whose condition, in by far the most part of cases, is caused by alcohol, are aided by the city treasury. Keil during late years has had to spend 1,168,000 marks [\$292,000] annually in poor relief, and a full third has been found to be due to alcohol.

### PERSONAL RESPONSIBILITY FOR COMMUNITY WELFARE

Emphasis must be laid upon the fact that in Germany the classes of greatest influence on account of possessions or culture have not done their duty in the struggle against injury from alcohol. It is these classes that give most encouragement to the drinking customs, although they are not conscious of it. The more advanced among them have learned that heavy drinking is injurious, and they are wont to declare: "I myself drink very little, at the most one or two glasses of beer."

This last is often false, and most of them deceive themselves as to the amount of liquor they consume in the course of the year, even when they are moderate drinkers.

The question concerning alcohol is not whether Meyer or Schultz believes that he can take two or three glasses of beer a day without harm, but, How is it possible to



diminish the immense amount of injury from it that the whole German people suffer?

We can only begin to obtain results in this struggle when the influential classes begin to grasp the fact that the alcohol question is not an individual, but a social and

racial question. The danger lies not in the whisky flask of the workingman, but in the drinking customs of the cultured classes. These must come to recognize the fact that pleasure is not the highest aim in life.—Translated for the SCIENTIFIC TEMPERANCE JOURNAL.

### What the Priest Told Matt

The following extract from a story in Today's Magazine [July, 1913] well illustrates the opportunity which popular periodicals have of serving the public in bringing out facts concerning drink and other social evils. It is one of the encouraging signs of American life that the periodicals while still too often reflecting the old customs of drinks are, nevertheless, also moving forward into the field of advanced knowledge.

MATT looked from Kate to the old priest. "Did I come back too soon?" he asked.

"Just in time, Matthew, to decide a question for Kate," answered Father Michael. "I've been telling her that you are a drinking man."

Matt stiffened belligerently while the old priest eyed him keenly. "What do you mean by 'drinking man'?" asked the young man.

"Well in your case," replied Father Michael, "I mean that you take three or four drinks a day and that one or two of those are always whisky; that on holidays you always take enough to make you foolish and you then hunt up some girl not of Kate's type, a girl as foolish as yourself."

Matt scowled sullenly. Kate stood with crimsoning cheeks. A little sense of shame made her clutch unconsciously at her throat. Kate's father had not been a drinking man. This was the girl's first meeting with one of life's bitterest problems.

"I never bother anyone with my drinking," growled Matt. "It's my own affair, isn't it, Father?"

"It becomes Kate's and my problem, just as soon as you want to marry her," answered Father Michael. "Matt, Kate says she can reform you. Can she?"

"You mean that I am to stop drinking when I marry!" exclaimed Matt. "And why should I? A man needs some pleasure. What harm would it do Kate?"

Father Michael rubbed his hand across his forehead and sighed as if he dreaded to open a familiar battle. Then he said, "Sit down, both of you, and listen to me. Matt, how many men do you know who drink whose families do not need the money they spend on the drink?"

"A man don't owe his family everything," said Matt.

"Doesn't he?" asked the priest. "Why not? Who is asking you to marry Kate and undertake the responsibilities of family

life? I thought you were doing it voluntarily. Matthew, you are asking Kate to marry you, to bear your children, and to make a man of you, and you haven't the least intention of becoming a man. You know that where you took one drink two years ago, you take three now, that next year you'll take four, and the next five. About every drinking man you know goes that way."

"Well, if Kate wants to undertake it hasn't she a right to?" persisted Matt, obstinately.

"No!" exclaimed Father Michael sharply. "Neither of you can consider yourselves in this matter. You must consider the children. You will be a drunken bum, in all probability, Matt. There is no reason to believe that you may not hand on to your children the same weakness that makes you drink. Some of your children may develop epilepsy from your alcohol-poisoned blood. What right have you to marry, Matthew Ryan?"

Matt scowled at the old priest. Nothing angers a drinking man so much as questioning his right to drink. There was nothing to be heard in the room for a moment but the clock. The old priest looked at Kate, then shook his head sadly, for Kate's expression of aversion had given way and she was gazing on Matt with a look of profound pity.

"I know I'm weak!" cried Matt. "I've told Kate so. I told her she'd have to help me. Was it my fault that I was born this way? Or is it better for me to go to the devil than to marry Kate?"

"No! No! Matt!" exclaimed Kate, and suddenly she rose and put her hand protectingly on Matt's shoulder. "Father, I can reform him! He isn't born bad, Matt isn't! He's just gotten into bad company. I'm sure I can make him stop drinking. Can't I, Matt?"

Matt reached up and took Kate's hand in his. "Father," he said, with a note of real manliness in his voice, "I'll try, try my



best to be whatever Kate wants me to be. Don't say I oughtn't to take this chance!"

Father Michael threw up his hand. . . . "Oh, my dears, if youth but had the experience, and age but the hope! Katie! Katie! You young girls with your love and your faith in love, you break my old heart! I warn you now that the way before you will be very hard. Your children may rise up to curse you. What shall it be, Katie?"

Once more, love conquered sanity. "If Matt will help me to get through night school, Father, I'll marry him."

Father Michael abruptly turned to Matt. "Swear, Matthew Ryan, here on the crucifix, to be faithful to this woman!"

Matt's eyes filled with tears. "And I'll promise to give up the drink, too," he said.

"No!" said the priest firmly. "I'll have no broken promise on the cross. You have no intention of stopping the drink. Swear what I tell you!"

And Matt swore.

### An Economic Mirror for Uncle Sam

THE call for the necessities of life was seldom so insistent as today. More food, shelter, raiment, opportunity are demanded. Men seek new remedies for improving conditions. Long, arduous, and necessary campaigns are waged for better living conditions, for safer and more adequately paid industry.

But while these needed changes are being brought about, the wise economist will take account of stock to see whether there are leakages which could be stopped, and advantages in employment or in rational management which could be gained in other ways.

In a household intelligently managed, where income is small and necessities many, the keeper of the family purse looks to the ways of her spending so that the money available may give the largest possible return.

The worse than waste that is going on in American homes and industry is revealed by a recent study of United States census statistics by Rev. U. F. Mueller, C. PP. S., of which a part is here given.

#### MONEY SPENT FOR LIQUOR DOES NOT BUY BREAD

Bread to the value of \$4.92 per capita was produced in the United States in 1909. The value of malt liquors produced was \$4.62 per capita, and of distilled liquors

\$2.22. Hence the tribute which is paid to the brewery for every man, woman and child in twelve or fifteen months is almost equal to the amount paid to the bread industry, while half as much more is poured into the treasury of the distilling industry.

Thus one reason is apparent for lack of sufficient food, and of proper nutrition. *Alcoholic liquors are produced to be sold. Money spent for them cannot be spent for bread.*

And what do the industries do with these gigantic sums? the compiler of the statistics asks, and replies, "We shall best learn by comparisons shown by the following tables:

#### New Value Produced by \$1,000 of Capital

|                                 |              |
|---------------------------------|--------------|
| <b>Average of 43 Industries</b> | <b>\$463</b> |
| <b>Bread</b>                    | <b>745</b>   |
| <b>Brewing</b>                  | <b>558</b>   |
| <b>Distilling</b>               | <b>2,330</b> |

But while the liquor industries are producing to sell to the people products beyond the average value from each \$1,000 capital invested, the relative amount of money paid to the wage-earner is far less.

#### Wages Paid per \$1,000 Capital

|                               |                 |
|-------------------------------|-----------------|
| <b>Average All Industries</b> | <b>\$186.00</b> |
| <b>Bread</b>                  | <b>279.00</b>   |
| <b>Brewing</b>                | <b>61.00</b>    |
| <b>Distilling</b>             | <b>42.50</b>    |

Nor do the producers of material profit so greatly from the production of liquors as from other industries.

#### Material Used per \$1,000 Capital

|                               |                 |
|-------------------------------|-----------------|
| <b>Average All Industries</b> | <b>\$660.00</b> |
| <b>Bread</b>                  | <b>1,120.00</b> |
| <b>Brewing</b>                | <b>144.00</b>   |
| <b>Distilling</b>             | <b>496.50</b>   |

#### A COMPARISON FOR THE WAGE-EARNER

The discrepancy between what the capitalist gets out of the liquor-producing industries, and what labor receives appears also from the facts compiled by Prof. Mueller.

#### The Amount of Capital Invested per Capitalist

|                               |                  |
|-------------------------------|------------------|
| <b>Average All Industries</b> | <b>\$67,437</b>  |
| <b>Bread</b>                  | <b>7,885</b>     |
| <b>Brewing</b>                | <b>1,050,325</b> |
| <b>Distilling</b>             | <b>128,700</b>   |

On the other hand, the brewing and distilling interests though having the largest per capita amount of capital, gave employment to relatively the smallest number of salaried employes and wage-earners.

#### Wage-Earners Employed per \$100,000 Capital Invested

|                               |            |
|-------------------------------|------------|
| <b>Average All Industries</b> | <b>36.</b> |
| <b>Bread</b>                  | <b>47.</b> |
| <b>Brewing</b>                | <b>8.1</b> |
| <b>Distilling</b>             | <b>8.8</b> |

"If the socialists have anywhere the right

[Continued on page 119]



## Disorder in the Central Telephone Office

**I**T IS the business of the brain to know what happens in different parts of the body and to prompt and determine its actions. To do this there has to be a system for receiving information and giving orders. From the brain to different parts of the body run many white threads called nerve fibres. They look as if they were all alike but there are two separate kinds, nerves of feeling, represented by dotted lines in the diagram, and nerves of motion, represented by the heavy black lines.



The nerves of feeling report what is seen, heard, felt, smelled and tasted. The brain tests the report, and this is called thinking.

Thinking is the finest and most important part of the work of the brain. It is what makes man what he is. It is carried on in the very, very, small chambers in the brain, the place where the thinker is at home.

The thinker gives out to the different members of the body his delicate orders, either to wait or to do something. These orders are carried out for the most part

by the nerves of motion, shown in the picture as heavy black lines.

Many nerve fibres are like a cable, composed of numerous fine threads. In these, nerves of motion are bound up in the same bundle with those of feeling.

The brain and nerves are dependent upon each other. If one is not in a normal condition, the other can not do its part as well.

The telephone system of a large city is sometimes out of order here or there. A heavy fall of snow may break down the wires and thousands of messages are held up. In Paris, the central telephone station burned down one day. For a whole day no message could be sent and half of Paris was in a state of desperation.

Our human telephone system is also liable to get out of order. Here also the worst disturbance is that which affects the control by the brain.

There is nothing that so frequently and so noticeably disturbs the brain as alcohol. It has a depressing or paralyzing effect. A little paralyzes only the most delicate and sensitive brain cells. These are the chambers in which thinking is carried on. Much alcohol paralyzes also the strongest nerve cells. These are the telephone stations of the nerves of motion, or the parts that receive orders from the thinking part the brain.

Experiments have steadily shown that the part of the brain that thinks is where the worst injury is done by alcohol. The thinking power is stupefied and thus alcohol often causes unnecessary or senseless orders to be given to the nerves of motion.

Whoever wishes to have his actions always under the control of his best thinking powers will use no alcohol, because it weakens the power by which we weigh and consider actions.—Illustration and translation from *Neuland*.

The illustration on this page may be obtained by teachers and others for class room use in large size (28x18 inches) from Deutschlands Grossloge II de I. O. G. T. Eppendorferweg 265. Hamburg 30, Germany. Price \$ .25.



## A Physician's Warning on Insanity

**T**HERE is probably no doubt in our minds that alcohol, directly or indirectly, is a potent factor in the production of insanity and the various nervous conditions which are so apt to develop into mental disorder. The questions involved are both medical and social in character,



and no one is better qualified to lead in their settlement than the medical man. It is not rational or ethical for the medical profession to remain passive while treatment in these cases goes by default, or while the public is viciously swindled by the so-called "jag-cures" which flourish on every side; nor should the profession fail to act energetically if it is convinced that there is a better and more scientific method of treating inebriety than obtains at the present time.

I believe that we should colonize the alcoholics and sterilize the epileptic and the feeble-minded, and I believe that we should do it now.—*Amer. Jour. of Insanity*, April, 1913.

### An Economic Mirror for Uncle Sam

[Continued from page 117]

to speak of rapacious capitalism," says Prof. Mueller, "it is in the brewing industry. It is the workers who pay the most tribute—not because they drink more than the wealthier classes—but because they are the mass of the people."

These figures as compiled by Prof. Mueller show clearly several facts of importance to the wage-earners of the United States who are yearly demanding a greater share in the product of their labor. They show chiefly that from the standpoint of the wage-earner the purchase of drink is short-sighted.

It deprives themselves and their families of needed food and other necessities and luxuries.

It is a source of injury to their own health and efficiency.

It reduces the demand for labor. Money spent for bread instead of for drink, for instance, would give work to nearly six times as many wage-earners as would be displaced from the brewing and distilling industries per \$100,000 capital invested.

It reduces the demand for wage-earners in the production of raw material to be worked into necessities.

Responsibility toward wage-earners does not rest alone with employers and society as a whole.

*Wage-earners have a responsibility toward each other in improving their conditions. The drink habit is anti-social in its effects upon the wage-earner.*

Expenditure for drink also makes the wage-earners, simply because of their greater number, inevitably the largest contributors to the receipts of the brewing and

distilling industries which show a concentration of capital in the hands of a few beyond the average of industries.

The intelligent wage-earner will think this over.



THE publication of the JOURNAL will be discontinued as usual during July and August. Special plans for the new volume beginning in September will make next year's issues of special interest. Send in renewals of subscriptions promptly. We want to double the subscription list before September first. We can do it if each present subscriber will secure and send just one new subscriber. Let us have your help.



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